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Manufacturers' Record.

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BALTIMORE, APRIL 24, 1896.

Advices from Wall street claim that there is a decided tendency toward improvement in financial circles; that capital is seeking investment more freely; that railroad securities are more in demand, and that leading financial authorities are anticipating a general widespread business revival. It is to be hoped that these expectations will be fully realized, for the average business man knows that there is great room for improvement.

Close Down.

A press dispatch from Nashua, N. H., says:

The Vale Mills Manufacturing Co. has received orders to shut down its mills, and will do so as soon as the stock on hand and in process of manufacture is used up. The mills are to remain closed until such time as business improves. This action will throw many hands out of employment.

The relocation of American industrial interests goes steadily on. Increasing competition is forcing badly located concerns out of business and bringing into existence new enterprises so located and so equipped with modern machinery as to enable them to turn out goods at the lowest cost. Under this readjustment or relocation the South will be the chief gainer.

What People Want to Know.

This country is great and busy. Its millions of honest, hard-working people are each day making an abundance of legitimate news. Natural resources are being developed in all parts of the country; mills are being built, mines developed, forests brought to market in merchantable shape, lands brought under cultivation; education, secular and religious, is being wonderfully promoted, and civilization is moving upon and towards higher planes.—*Savannah News*.

The Manufacturers' Record is glad to note that the News emphasizes the value and the necessity of educating the people to the country's development. As we have often repeated, the people depend on the newspapers for their knowledge of current events—to keep posted. They are, as a rule, much more interested in what is going to help the advancement of the country and increase its prosperity than in accounts of robberies and other crimes, often grossly exaggerated. This applies to the press of the whole country,

What Southern Towns Can Do.

An illustration of what Southern towns, without any peculiar natural advantages, can accomplish in solid advancement, and without any spur or boom, by energy and enterprise, is given in the story of the growth of Rock Hill, S. C., published in the *Charleston News and Courier*. In 1880 Rock Hill had 809 inhabitants, and as late as 1887 the assessed value of its taxable property was only \$450,000. Its present population is 5500, and it has invested in cotton mills, almost wholly of local money, nearly \$800,000, or almost twice the total assessed valuation of 1887. The pay-roll of its factories is \$6000 a week, and the annual business of the place aggregates \$3,500,000. The first cotton mill started in the town commenced work sixteen years ago. Its capital stock is \$100,000, and the value of its plant is \$175,000. This mill runs 200 looms and 8000 spindles. The second mill, chartered seven years ago, runs 320 looms and 7380 spindles, and consumes 1800 bales of cotton annually in making ginghams. The third mill, organized six years ago on the instalment plan, with a capital of \$71,000, has a plant valued at \$157,000. It runs 486 looms on ginghams, sheetings, towels and white goods. The fourth mill, organized in March, 1895, is about completed, and will start up with 160 looms and 6400 spindles to make "high grade 40-inch Sea Island finished goods." The fifth mill was put under construction in September last, and is nearly completed. Its capital is \$125,000. It will "make yarns, fine print cloths and fancy weaves of white goods."

A buggy company, to which reference has heretofore been made in the Manufacturers' Record, has a plant covering four acres, and ships its finely finished buggies over the entire South; while a number of smaller enterprises contribute to the diversity of the town's industrial interests.

The spirit which animates the business people of Rock Hill, and which has brought forth such a remarkable development—especially remarkable when it is remembered that it is due almost wholly to local men and local money—was emphasized by the bid of that town to secure the location of the Industrial College established a year or two ago by the State of South Carolina. As an inducement to have Rock Hill selected, that place outbid every other town and city in the State, and secured an institution which has cost \$250,000, and which is one of the most notable achievements of South Carolina of recent years in the line of educational advancement.

Such, in brief, is the story of what one small town has been able to accomplish, and of the success which has followed the work of its own people in their determination to advance the prosperity of the place, and thus their individual prosperity. All over the South there are hundreds of towns with just as many advantages as Rock

Hill, with more capital than Rock Hill had to start on, making little or no progress, wholly because their people lack the energy and the hustle which gave life and activity to this South Carolina community. The Manufacturers' Record could put on this "roll of dishonor" a long list of Southern towns, and if being placed in such a "roll of dishonor," rather than in the roll of honor, would shame them into activity and enterprise and work, we should be tempted to keep standing a list of Southern towns that make no effort to help themselves. An inactive, non-progressive community, like an inactive, non-progressive man, is a cumberer of the earth, and is in reality a curse to its people and a curse to its section.

What towns want to stand in the "roll of dishonor?"

The B. & O. Reorganization Committee.

The financial and railroad history of Baltimore has been marked by few events of more importance to this community than the recent formation of the local committee for the reorganization of the Baltimore & Ohio Railroad. That the able financiers who are members of this committee have determined not to sit down and permit this corporation to pass absolutely into the control of the New York parties without full protection to local interests is a matter of far more local importance than simply the control of the Baltimore & Ohio, as it evidences an awakened spirit that will materially advance other Baltimore interests. This move is peculiarly gratifying and significant, in view of the fact that New York has for some time been practically financing all of the railroad corporations of the country. It is about time that a halt should be called, and that a few railroads, at least, should be financed and controlled by the people of other cities, and Baltimore has done well to take the lead in this case.

It is also gratifying, in this connection, that the Baltimore committee has determined to make a thorough investigation of all the operations of the Baltimore & Ohio, running over a series of years. This indicates a determination on their part to get at the exact facts, and to know wherein the weakness of the Baltimore & Ohio consists; to learn what has become of the new capital which has been raised of recent years, and thus see what must be the real foundation on which to predicate its future financial operations. The members of this committee are among the foremost financiers and business men of Baltimore, and they should receive the hearty co-operation of the security-holders and of all others interested in the future of this road. The Manufacturers' Record has seen no local movement for a long time more significant and filled with greater possibilities for the interests of this city than the organization of this committee and the work which it has already accomplished and that which it has undertaken.

Worth Thinking About.

The South abounds in raw materials upon which great industries could be established. Much as has been done in this direction of late years, the South has but broken in upon the outer edge of its natural resources, while it contains a vast diversity of materials that practically go to waste, when they might give employment to millions of capital and to tens of thousands of wage-earners.

What the South most needs in this practical age is to study intelligently what the rest of the civilized world is doing in all industrial lines, and to apply the knowledge thus acquired to the development of its own abounding resources.

In its numerous technical schools of greater or lesser scope the South is fitting hundreds of its young men for leadership in the myriad industries that may be profitably undertaken, and is training other hundreds to be master mechanics and directors of labor in establishments that will require the most intelligent and expert supervision. To utilize all these natural resources, and thus to give employment to the brainy young men that will yearly graduate from these institutions, is the privilege as well as the duty of the South.

Let us select from the broad field of human industries a few that will illustrate our meaning. Take the starch industry as one. What is starch? An extract from vegetable substances that enters largely into interstate and international commerce. Aside from the immense home consumption of our domestic production, we export a vast quantity to England and her colonies, and we also import and consume a great deal made in Germany. As to this last, an intelligent German-American citizen named Wendt, who for fifteen years has been a successful merchant of Sioux Valley, S. D., and who has recently returned from a protracted visit to his old German home, has this to say of his observations while there. It appears in an interview in his local paper, the Sioux Valley News:

Mr. Wendt said: "I found that in consequence of our free trade legislation the industries of the German Empire have been given a tremendous impetus. Factories are enlarging their capacities and increasing their outputs. What is believed to be the largest starch factory in the world imports all its raw materials and manufactures starch for the American markets. More than 1000 men are employed in a single starch factory making starch for the American market. The feeling was everywhere expressed that the change in our tariff laws meant immense prosperity for German industries in all lines. The laboring classes expressed regret that the German government continues to prohibit the importation of American meats, because such commodities were more expensive now than when American meats could be readily purchased. I was strongly impressed with the fact that since the change in our tariff laws prosperity had shifted from our country to Europe, or, at least, that part of Europe embraced in the German Empire. The people there do not seem to realize that a change in our laws is likely, and they are proceeding upon the theory, apparently, that they will be able

to control the American markets for a long term of years, and so they are adding to their factories."

British starch manufacturers have been complaining to their government for some time that American and German starch manufacturers were putting their products upon their domestic market at prices with which they could not compete, and that unless the government came speedily to their rescue by imposing a tax upon such imports, they would be obliged to abandon their business. This is a strange complaint as to German competition, because, according to Mr. Wendt's statement, their largest manufactory, and the "largest in the world," "imports all its raw materials."

Now, why should not the South make all the starch that Germany sends to the United States? Why, for that matter, should it not make a large part of what is consumed in this country?

Now let us go a step higher. The South, in nearly all its States, has clays that may be made into everything from common building and furnace-lining bricks to the choicest porcelain wares. It can make the enameled-face bricks, now so fashionable for inside finish in the great office buildings of the big cities; everything in stone ware, from the Boston bean pot to the red chimney pots; tiles as fine as were ever produced, for hall floorings and artistic fireplaces, and every kind of wares that have made England's Staffordshire potteries famous throughout civilization. All these things the South can supply to American consumers. And yet we read in the Staffordshire (England) Sentinel of March 24 the following editorial of congratulation upon the prosperity given to British potteries by our present tariff laws. Read and consider what this frank statement means to the United States, and especially to the South. The Staffordshire Sentinel in part said:

The manufacturers who are the busiest at the present season of the year are those who have laid out their works for supplying the American trade. The United States take fully 50 per cent. of the crockery manufactured in England, and of recent times, with the settlement of the tariff difficulty and returning prosperity in the land of the Stars and Stripes, the exports to that great market have steadily improved. The second month of the year was a typical example of this, and the reports from travelers to home firms are such as to give rise to the belief that the increased output will be maintained for the current month. The American taste appears to be growing more and more strongly for decorated goods from this country, and the returns show how great is the shipment of decorated ware as compared with white ware.

At least one large firm, however, in the States has adopted the plan of ordering white goods from England for decoration in America, and the action has aroused some ill-feeling on the part of the workers at American potteries. But the matter seems to be only an experiment at present, and the results produced will no doubt depend future action. Germany is entering into close competition with the manufacturers of this district for the supply of the American markets, and the rivalry is becoming keener every year, while at the same time the United States home trade is improving. Half our pottery trade is with the States, but the difference between February this year and last is only £2406, one-seventh of the total increase. Still, £66,688 is a big leap from £36,001, which was the total in 1894.

The Manufacturers' Record could multiply these quotations from foreign statements indefinitely. They sustain what it has always claimed, that protection is the one thing the South needs to put it in the forefront of the manufacturing countries of the world. They also show that what the Manufacturers' Record has always claimed is true, that the question of protection by tariff to American industries ought never to

be one of partisan politics, but should be the established policy of the nation.

The South has an infinite variety of other natural products that will enable it to compete advantageously with other parts of this country and with foreign nations in almost numberless fields of industries, and to make it the busiest, the most diversified and the most prosperous productive section of the globe.

A Department of Commerce and Manufactures.

The suggestion of the editor of the Manufacturers' Record, that a Department of Manufactures and Commerce be created, is being vigorously advocated throughout the country. The St. Louis Age of Steel, in its last issue, says:

There can be no question as to its urgency or importance, or to its practical value, if wisely directed and kept aloof from partisan politics. In some of the leading nations of Europe this vital factor of a representative government has been incorporated in the framework of the official executive. In this country, at present, no such department exists. As strictly a commercial and industrial nation, with practically unlimited resources, and an undisputed supremacy in the capacity of production, the need of such a department is self-evident. Precedents are not wanted for such an addition to the Cabinet; notably that of the Department of Agriculture. This represents an enormous industry, but however large and important it may be, by no means overreaches the commercial and manufacturing interests of the country. In commenting on the relative importance of the two interests, the president of the National Association of Manufacturers says in a recent circular of information: "Half a century ago the aggregate value of all the products of manufacturing industries in the United States was only five-eighths of the value of the agricultural products. The growth of industry has been so rapid, however, that manufacturing outstripped farming thirty years ago, and the last census showed the value of manufactured articles was more than three times the value of all that agriculture yielded." The figures for fifty years are as follows:

VALUE OF PRODUCTS.

Years.	Agriculture.	Manufactures.
1840,	\$860,000,000	\$500,000,000
1850,	1,226,491,326	1,019,100,616
1860,	1,750,000,000	1,885,861,676
1870,	1,958,070,927	3,285,860,354
1880,	2,212,510,927	5,340,191,458
1890,	2,460,107,454	9,036,764,396

It can be seen from these figures that the commercial and industrial interests of the United States are rapidly becoming of supreme importance, and by the process of development will eventually compel the adoption of some such law as that introduced by Senator Frye.

Bicycle Factories Needed in the South.

It has been stated that the present season will witness the sale in this country of at least 1,000,000 new bicycles. As the price of wheels runs from \$50, the lowest, to \$100, it may be conservatively estimated that the average is about \$75 to the consumer. But putting it at the lowest price, in order to counterbalance any possible overestimate as to the number to be sold, the 1,000,000 reported output will represent an outlay during 1896 of \$50,000,000 by Americans for bicycles. This takes no account of the large sale of second-hand bicycles. Throughout the South the wheel is coming more and more into use, and the aggregate outlay which this section will make this year for bicycles is so large as to suggest the importance of the establishment of bicycle factories.

Three or four years ago a small factory was started in Hagerstown, Md., and growing with the growth of business throughout the country, it is now taxed to its utmost capacity, though it has 1200 hands employed. South of Maryland, we believe, there is not a single bicycle factory, although a company has just been organized in Atlanta for

this purpose. It ought to be possible to make this important industry not only contribute to the employment of Southern labor and to the profit of Southern capital, but also aid in retaining at home the millions of dollars which are now being spent elsewhere.

Hon. L. M. Curry, who was appointed by the Confederate Veterans at the Houston meeting last year to deliver the annual address at the June meeting, is gathering material with great care in order to make this address of historical value. No man in the country is better fitted for this task than Mr. Curry. In connection with a number of other Southern people, Mr. Curry is trying to organize a Southern Historical Society. The people of the whole South owe it to the past of their section, to themselves and to posterity to organize and support such a society.

Progress of the Tennessee Centennial.

[Special Cor. Manufacturers' Record.]

Nashville, Tenn., April 20.

This week in Centennial circles was marked by the official announcement of the programme for the first and second days of June, and it has everywhere been received with satisfaction. The feature of the first day which will appeal to the largest number of people will be the civic and military parade, composed of State and Federal troops, organizations and societies and citizens generally. There will be exercises at the Auditorium, which will be completed by that time. These will be presided over by Governor Turney, and there will be three addresses on the two days of the exercises. The Hon. J. M. Dickinson, Assistant Attorney-General of the United States, who is a Nashville man, will deliver an address on "The One Hundredth Anniversary of Tennessee's Admission Into the Federal Union," and the prize centennial ode will be read. A chorus of 500 children will sing. On the second day there will be addresses by Hon. A. A. Taylor on "Early Days in Tennessee," and one by Hon. E. W. Carmack on "The Future of the State," besides other exercises under the auspices of the Ladies' Hermitage Association, Daughters of the American Revolution and Society of Colonial Dames. The day will close with a sham battle, in which the 5000 United States troops and 1500 State troops will participate.

The announcement of the programme has stimulated the interest in every direction, and the crowds that go daily to the Centennial grounds has increased to such an extent that the street railway has to run extra cars to accommodate the travel. The throngs of strangers who pass through the city rarely fail to inquire for the grounds, and to ride out on the cars to see them. The distance to the grounds from the central part of the city, the Public Square, is such that a visit to them can be made within an hour, allowing half an hour to be spent in the park. Consequently the number of visitors will keep on increasing.

Work is still progressing very rapidly, and the large force of men engaged in the beautifying of the grounds has done a vast amount in that direction, and already the park has seemed to undergo a change almost without precedent. The work, of course, was done under the most favorable circumstances, as fully \$150,000 had been spent on the West Side Park before the exposition people went to work. There were hundreds of trees, and to these are now being added evergreens and shrubs in such numbers that thousands have already been put in place. Every turn in the walks and roads is made the location of a picturesque group

of beautiful plants. The laying out of the flower beds along the principal walks where the avenues of roses and clematis are to run is nearly completed, and the plants have started to grow. The stone bridge across the lake in front of the Transportation Building is complete, and the system of roads out in the north end of the park is being pushed along so that the entire road system will be ready at an early date to receive the asphalt.

Work on the Agriculture Building will begin this week, it is thought, and will be pushed along so that visitors in June can see the beauties of the structure being prepared for the farmers of the State.

As soon as the inauguration day proceedings are done with, the contracts for the remaining buildings will be let and pushed forward to completion. The determination is strong that there shall be no building not ready for the exhibits long before the opening. The news that the bill for a government appropriation has been introduced and will be passed early in the December session has been another very encouraging feature of the week, and altogether no brighter outlook could be asked than now confronts the Centennial workers.

Industrial Interests at Birmingham.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., April 20.

The large demand that existed for iron in this district has greatly decreased, until it has reached the point where dealers can call it a slow market. The quotations fixed after the meeting of iron-masters in New York yet prevail, and are pretty closely adhered to. They are for No. 1 foundry, \$8.25; No. 2 foundry, \$7.75; No. 3 foundry, \$7.50; No. 4 foundry, \$7; No. 1 soft, \$7.75; No. 2 soft, \$7.50; silver gray, two grades, \$8 and \$8.25; gray forge, \$6.75 to \$7, with inside figures prevailing; mottled, \$6.75.

All the furnaces in this district (excepting possibly two that are undergoing repairs and alterations) are in blast. The Sloss Iron Co. is practically rebuilding, by enlarging its No. 4 furnace, and is pushing the work in the endeavor to have it in blast by June 1. The sales of this company for several weeks past have been in excess of production, and it is alone in reporting diminution of stock in yards. The reports from the furnaces at Sheffield are of the most flattering character, both as to quantity and character of the output. The "Triplets" are loading 1000 tons for shipment by the Tennessee, and the Colbert Iron Co. has shipped 200 tons to St. Louis, an initial shipment, to be followed by others already contracted. The reports of shipments from this district to foreign ports have been so exaggerated that it is well to state that they have been very limited and confined to trial lots. They are due to the enterprise of a mercantile venture, which hopes ultimately that these shipments will prove successful, and, as pioneers in the business, they hope to obtain the advantages, if any result, from first discovery and possession of the market. The first shipments ordered have been the last, so far.

Misleading rumors have been in circulation concerning the steel plant, owing to the departure of Europe, for a four months' stay, of Mr. Spencer, the president of the Southern Railway Co. He failed to perfect the subscription of his road before his departure, but said he would attend to it on his return. This started the tongue of gossip, and was a sweet morsel in the mouth of the creaking element. The banking firm of Steiner Bros., of this place, addressed a note to the authorities of the T. C. I. & R. R. Co., offering their services to procure from other sources the amount of the Southern Railway Co.'s subscription, \$100,000. It was

referred to the parties in New York who are fathoming the enterprise. So if Mr. Spencer's action causes any delay, not desirable, the interest he represents can and will be covered right here twice over, if necessary. The ease and promptitude with which the \$100,000 asked of the citizens of Birmingham was raised is but the evidence of an awakened public spirit that needed only something tangible, to which confidence could be pinned, to be aroused from its lethargy. The men who conceived and planned this enterprise counted the cost and calculated its success before they put their shoulders to the wheel. They have the money, and they are not looking backward. They are looking forward. The steel mill will be built. Whether it be the confidence in its erection, or whether it be the resultant of a confidence that has been growing surely but slowly, one cannot fail to have noticed in the last few months improvements in the manufacturing part of the city—improvements that add to the capacity, additions that largely add to facilities, and, finally, erection of entirely new buildings for manufactures not established here. There is an air of business about all these places, and one hears very little croaking about them. They are too busy to croak. There is now en route here the machinery necessary for a tobacco and snuff factory. We will have in time for the next season's cotton crop a cotton-oil mill, the particulars of which are withheld for the present. But its establishment is a certainty. Other enterprises are in embryo that will be hatched out successfully. It is gratifying to state that Baltimore enterprise and money will soon be added to our resources. Messrs. Douglas H. Gordon and Henry S. Jenkins have filed articles of incorporation of the Jefferson Coal & Railroad Co., which is successor to the Mary Lee Coal & Railway Co. The property of the latter company was sold by order of court under foreclosure proceedings, and purchased at the sale by Messrs. Douglas H. Gordon, Jas. Sloan, Jr., and Joseph W. Jenkins, all of Baltimore. The incorporators and the purchasers came to an agreement, by which the former came into possession of the property. The incorporators were holders of bonds of the Mary Lee Company, and have capitalized the new company at \$400,000. By decree of court the property has been freed from all embarrassment, and it is understood that the new owners will at once enter into a full development of their interest and add to the importance, usefulness and prosperity of the district.

J. M. K.

According to the city directory of 1896, the population of Macon, Ga., and suburbs is nearly 40,000.

Superficial Examination of Ores Free

The Manufacturers' Record, seeking to turn attention to the mineral resources of the South and to aid its readers in the intelligent investigation as to what may or may not be of value, has arranged with Mr. Charles Catlett, chemist and geologist, of Staunton, Va., to make superficial examinations of samples without charge. Such samples will be reported in the Manufacturers' Record, with a word of explanation as to probable or possible value.

The following directions should be observed:

Samples should be sent to Charles Catlett, No. 10 New Court House street, Staunton, Va., with all mail or express charges prepaid.

The name and address of sender should be clearly stated on package.

Care should be taken to select an average sample, otherwise the examination will prove of no value. Quite a small quantity will be sufficient.

A postal card or letter to Mr. Catlett, with a word of explanation as to mode and exact location of occurrence, would assist in giving value to the examination.

THE MINERAL AND METAL PRODUCTION OF THE UNITED STATES IN 1895.

The total value of the mineral and metal production of the United States in 1895, as shown in the accompanying table, amounted to the enormous sum of \$673,881,505, which compares with a similar total of \$578,470,058 for 1894, showing a total increase of \$95,411,447 for the year. Of the whole amount last year, \$240,615,120 represented the value of the metals; \$433,266,385 that of the non-metallic products, including \$5,000,000 for various unspecified products.

From these totals, however, it is necessary to make some deductions for articles which have been necessarily duplicated in the table. Among these is the iron ore used in making pig iron; a large part of the zinc used in making white lead; the zinc used in making zinc oxide; the coal in making coke; the antimony ore used in making the metal; the manganese ore employed in making spiegeleisen, which is included in pig iron, and some other articles of the kind. A careful estimate of the proper amount of these deductions would give about \$45,000,000 in 1895, against \$34,000,000 in 1894.

Making these deductions, we have a total net value for 1895 of \$628,881,505, as against \$544,470,058 for 1894, the increase amounting to \$84,226,503, or 15.5 per cent.

These statistics have been collected for Volume IV of "The Mineral Industry, Its Statistics, Technology and Trade," by Mr. Richard P. Rothwell, editor of the Engineering and Mining Journal, of New York, which annually issues this work.

MINERAL PRODUCTION OF THE UNITED STATES IN 1894-95.

No.	Products.	Customary Measures.	1894.		1895.	
			Quantity.	Value at Place of Production.	Quantity.	Value at Place of Production.
NON-METALLIC.						
1.	Corundum and emery.	Short tons...	1,120	\$109,500	385	\$56,400
2.	Garnet.	Short tons...	1,000	35,000	2,065	93,350
3.	Grindstones.	Short tons...	20,989	257,596	36,399	290,978
4.	Millstones.	Short tons...	297	4,447	105	8,525
5.	Tripoli and infus. earth.	Short tons...	1,663	24,825	1,788	26,049
6.	Whets ones.	Short tons...	1,735	84,450	1,009	78,303
7.	Alum.	Short tons...	72,000	2,160,000	75,000	2,225,000
8.	Antimony ore.	Short tons...	165	9,075	1,083	37,005
Asbestos and talc -						
9.	Asbestos.	Short tons...	295	4,350	1,010	11,400
10.	Fibrous talc.	Short tons...	50,500	505,000	66,500	665,000
11.	Talc and soapstone.	Short tons...	21,044	401,892	18,885	361,358
12.	Asphalt.	Short tons...	4,198	75,654	14,300	300,000
13.	Bituminous rock.	Short tons...	34,199	148,120	43,778	143,456
14.	Barytes.	Short tons...	23,758	95,032	20,255	99,020
15.	Bauxite.	Long tons...	10,732	42,928	14,145	56,580
16.	Borax.	Pounds...	13,140,584	919,841	13,506,326	742,850
17.	Bromine.	Pounds...	379,444	98,655	384,854	103,632
18.	Cement, natural hydraulic.	Brls., 200 lbs...	7,813,766	4,455,928	7,694,033	4,397,285
19.	Cement, Portland.	Brls., 400 lbs...	611,229	1,289,446	749,059	1,430,089
20.	Clay, refractory.	Short tons...	3,375,738	4,050,885	535,750,000	4,500,000
21.	Clay, kaolin.	Short tons...	24,562	185,169	30,910	258,491
22.	Coal, anthracite.	Short tons...	*52,010,333	80,879,404	*78,328,985	89,948,699
23.	Coal, bituminous.	Short tons...	8,495,295	103,758,967	*138,079,466	125,489,388
24.	Coke.	Pounds...	6,570	12,674,558	9,927,348	15,258,935
25.	Cobalt oxide.	Pounds...	14,997	8,813	6,400	8,640
26.	Copperas.	Short tons...	100,000,000	2,016,000	45,000,000	1,350,000
27.	Copper sulphate.	Pounds...	2,653	85,125	.....	.....
28.	Chrome ore.	Long tons...	18,704	83,465	22,195	104,082
29.	Feldspar.	Long tons...	6,400	58,314	4,000	36,440
30.	Fluorspar.	Short tons...	770,946	34,689	392,008	17,640
31.	Graphite, amorphous.	Short tons...	165	1,352	1,100	4,700
32.	Graphite.	Short tons...	301,536	910,831	298,572	974,219
33.	Gypsum.	Long tons...	11,880,000	20,790,000	16,930,000	29,662,500
34.	Iron ore.	Brls., 200 lbs...	*56,750,000	28,375,000	*40,000,000	30,000,000
35.	Lime.	Short tons...	1,370	7,864	2,200	14,700
36.	Magnesite.	Long tons...	11,735	54,890	14,883	92,044
37.	Manganese ore.	Pounds...	829,500	35,957	750,000	31,956
38.	Mica, ground.	Pounds...	9,900	11,103	6,200	6,400
39.	Mica, sheet.	Pounds...	5,776	58,936	6,742	69,481
40.	Mineral wool.	Pounds...	750,000	45,000	1,900,000	114,000
41.	Natural gas.	Short tons...	47,593	1,011,182	47,084	1,086,567
42.	Paints, min. red.	Short tons...	91	111,209	118	18,190
43.	Paints, vermilion.	Short tons...	87,242	8,445,174	92,000	8,740,000
44.	Paints, white lead.	Short tons...	22,814	1,711,275	22,690	1,588,300
45.	Paints, zinc oxide.	Short tons...	48,527,336	40,762,962	50,634,025	42,547,701
46.	Petroleum (crude).	Brls., 42 gals...	952,155	2,856,465	851,498	2,577,643
47.	Phosphate rock.	Long tons...	225,000	607,500	217,700	587,700
48.	Marl.	Long tons...	150,000	.....	.....	150,000
49.	Precious stones.	Long tons...	107,462	466,466	81,000	325,500
50.	Pyrites.	Brls., 280 lbs...	11,798,639	5,586,326	12,521,498	5,844,348
51.	Salt, evaporated.	Brls., 280 lbs...	2,341,922	784,063	1,907,38	518,740
52.	Salt, rock.	Long tons...	477,670	418,612	723,640	553,128
53.	Silica, sand and quartz.	Squares...	611,776	2,007,321	645,361	2,062,239
54.	Slate, roofing.	Square feet...	4,955,125	389,758	3,786,599	369,062
55.	Slate, other manufacture.	Long tons...	3,544,393	2,126,636	3,390,000	2,542,500
56.	Stone, limestone (flux).	Cubic feet...	6,331,279	3,576,853	6,942,533	4,086,261
57.	Stone, marl e.	Cubic feet...	1,420	29,000	8,0	10,750
58.	Stone, onyx.	Long tons...	411	7,056	12,000	192,000
59.	Sulphur.	.....	.....	130,000,000	.....	32,000,000
60.	Other building stones.	.....	.....	378,877,939	.....	428,226,385
61.	Total non-metals.	.....	.....	.....	.....	.....
62.	Aluminum.	Pounds...	817,600	490,560	900,000	495,000
63.	Antimony.	Short tons...	220	39,200	433	68,847
64.	Copper.	Pounds...	353,501,314	33,540,489	396,453,850	36,944,988
65.	Gold.	Troy ounces...	1,923,619	39,761,205	1,265,612	46,830,200
66.	Iron, pig.	Long tons...	6,657,388	71,966,364	9,446,308	108,632,542
67.	Lead, value at New York.	Short tons...	10,867	10,585,048	156,854	10,632,768
68.	Quicksilver.	Fasks, 76½ lbs...	30,440	1,095,840	39,978	1,313,589
69.	Silver, commercial value.	Troy ounces...	49,846,875	31,403,531	46,331,235	30,254,296
70.	Zinc spelter.	Short tons...	74,004	5,209,882	81,858	5,942,890
71.	Total metals.	.....	.....	194,092,119	.....	240,615,120
72.	Est. products unspecified.	.....	.....	5,500,000	.....	5,000,000
73.	Grand total.	.....	.....	578,470,058	.....	673,881,505

*Bituminous coal includes brown coal and lignite. The anthracite production is the total for Pennsylvania, Arkansas and Colorado. †Estimated.

Tennessee's Oil Wells.

Nearly \$8,000,000 of capital has been invested in the Tennessee oilfields within the last six months, and eight counties in the up-Cumberland country are awake with the industry. The great value of the oilfields was kept secret for some time by speculators, who bought up all the land obtainable. The latest news from the centre of the Tennessee oilfields is to the effect that the most sanguine expectations

are being realized, and that this territory is proving to be the richest section of the State.

The Standard Oil Co. entered the field some time ago, and there are now forty-one companies, operating 404 oil wells. These companies have arranged for tankage, and are now discussing the question of transportation of the oil by pipe lines.—Correspondence Chicago Record.

The figures as to the amount of capital invested are probably too high.

OUR FORESTRY INTERESTS.

Facts and Figures Regarding Our Forest Resources Briefly Stated.

By B. E. Farnow, Chief of Division of Forestry, Department of Agriculture.

The following data regarding the extent, condition and consumption of our forest resources have been compiled to answer frequently recurring inquiries.

There are no forestry statistics in existence. Even the census figures referring to the lumber industry are avowedly imperfect, and based on partial returns. The data given, therefore, are only approximations and must be taken with that reserve.

The forest area of the United States (exclusive of Alaska) may be placed at somewhat less than 500,000,000 acres. This does not include much brush and waste land which is, and will remain for a long time, without any economic value. This area is very unevenly distributed; seven-tenths are found on the Atlantic side of the continent, only one-tenth on the Pacific coast, another tenth on the Rocky mountains, the balance being scattered over the interior of the Western States.

Both the New England States and the Southern States have still 50 per cent. of their area, more or less, under forest cover, but in the former the merchantable timber has been largely removed.

The prairie States, with an area in round numbers of 400,000 square miles, contain hardly 4 per cent. of forest growth, and the 1,330,000 square miles—more than one-third of the whole country—of arid or semi-arid character in the interior contain practically no forest growth, economically speaking.

mated at 40,000,000,000 feet, B. M. It is made up of the following kinds:

	Feet, B. M.
White pine.....	12,000,000,000
Spruce and fir.....	5,000,000,000
Hemlock.....	4,000,000,000
Longleaf pine.....	3,000,000,000
Shortleaf and loblolly.....	3,000,000,000
Cypress.....	500,000,000
Redwood.....	500,000,000
All other conifers.....	1,000,000,000
Total conifers.....	30,000,000,000
Oak.....	3,000,000,000
All other hardwoods.....	7,000,000,000
Total.....	40,000,000,000

In this cut the various regions participate in the following proportions:

	Feet, B. M.
New England and N. Atlantic States.....	6,000,000,000
Central States.....	5,000,000,000
Lake Region.....	13,000,000,000
Southern States.....	10,000,000,000
Pacific States.....	4,000,000,000
Miscellaneous.....	2,000,000,000

The consumption of fuel to the extent of probably 180,000,000 cords, of fence material, etc., the waste in the woods and at the mills, and loss by fire, brings the total annual wood consumption of the United States easily to 25,000,000,000 cubic feet, or fifty cubic feet per acre, a figure nearly corresponding to the yield per acre realized in the well-kept forests of Prussia, where reproduction is secured by skillful management.

The consumption increases from decade to decade in greater proportion than the population; and new industries, like the wood-pulp industry, add constantly to the demand.

The value of forest products used in the census year 1890 was estimated to exceed \$1,000,000,000.

The items making up this grand total may be classified as follows, always keeping in mind that only approximations to actual conditions are here attempted. These figures are based in part on census statistics, in part on other estimates, and remain fairly representative to date (1895):

Mill products, lumber, shingles, implement and furniture, stock, etc.....	\$450,000,000
Railroad construction.....	45,000,000
Export timber.....	5,000,000
Wood pulp.....	5,000,000
Miscellaneous boat sizes.....	50,000,000
Total materials requiring log and boat sizes.....	555,000,000
Fuel and fencing.....	450,000,000
Charcoal.....	7,000,000
Dyewood and gunpowder.....	500,000
Naval stores.....	8,500,000
Wood alcohol and acetic acid.....	2,500,000
Tanning material.....	15,000,000
Maple syrup and sugar.....	5,500,000
Grand total.....	1,044,000,000

The imports of wood and other forest materials amount to between \$20,000,000 and \$30,000,000 annually, about 25 per cent. of which consists of materials which do not grow on this continent. The balance comes mainly from Canada.

The exports of forest products and partly-manufactured wood materials varies between \$25,000,000 and \$30,000,000, with \$12,000,000 to \$15,000,000 more of manufactures in which wood plays an important part.

Although many of the great staples have in some regions been entirely exhausted and in others approach exhaustion, prices of lumber have not advanced in proportion, for various reasons. Competition, stimulated by active railroad building, opening up of virgin fields of supply, improved machinery, systematized methods of logging and of handling and marketing material, have tended to keep the price down.

Meanwhile stumpage has increased rapidly for such kinds as show rapid decrease in supply. Thus white-pine stumpage more than doubled in ten years, while walnut, tulip poplar and ash stumpage has increased many fold as the supply has grown scarcer.

In the markets, while the average price for lumber has advanced but little, the better grades have appreciated disproportionately. From the carefully-collected statistics for shipbuilding, which requires

all first-class material, the average price per 1000 feet, B. M., for the country at large for the following kinds appears:

Kind.	Average.	Lowest.	Highest.
White oak.....	\$30.70	\$19.00 (Indiana).....	\$125.00 (California).....
Other oaks.....	34.90	\$20.00 (Indiana, Kentucky, West Virginia).....	102.00 (California).....
Hard pine.....	24.40	12.00 (Alabama).....	42.00 (Iowa).....
White pine.....	34.70	20.00 (Minnesota).....	100.00 (Georgia).....
Fir.....	21.00	15.00 (Washington).....	80.00 (Mass.).....
Spruce.....	20.00	12.00 (Delaware).....	50.00 (Washington).....
Cedar.....	40.00	17.00 (Missouri).....	35.00 (Connecticut).....
Cypress.....	31.60	18.00 (Mississippi).....	50.00 (Delaware).....
Average of all.....	30.00		

than 50 per cent. The industries relying directly or indirectly on forest products employ readily more than 1,000,000 work-

ers far the greater part of the State not even a valuable second growth of white pine can be found.

Red pine, or Norway pine, is found associated with the white pine in its more Northern habitat, and until lately was sold with the latter without distinction, although the lumber is very different, resembling more nearly the Southern shortleaf pine.

The bull pine (*Pinus ponderosa*) of the Rocky mountains and the Pacific coast forms the main supply of hard pine for local use in the West, while the gigantic sugar pine of Oregon and California furnish desirable soft-pine material. Scattered here and there in small areas throughout the Western country, notably in Idaho, is found the mountain white pine (*Pinus monticola*), which is capable

LEADING INDUSTRIES COMPARED

[Data from Census 1890, in round numbers.]

	Capital involved.	Employees.	Wages.	Raw materia's.	Products.
Agriculture.....	15,982,000,000	8,286,000	.....	.....	2,460,000,000
Forest products, total.....	562,000,000	348,000	102,000,000	245,000,000	1,044,000,000
Forest industries, enumerated.....	+	+	+	+	446,000,000
Forest products, not enumerated (estimated).....	+	+	+	+	598,000,000
Manufactures using wood (see table above).....	543,000,000	513,000	294,000,000	442,000,000	907,000,000
Mineral products, total.....	343,000,000	300,000	109,000,000	.....	610,000,000
Gold and silver.....	386,000,000	57,000	40,000,000	.....	99,000,000
Iron and silver.....	414,000,000	176,000	96,000,000	327,000,000	479,000,000
Manufactures of iron and steel.....	86,000,000	60,000	32,000,000	79,000,000	131,000,000
Leather.....	102,000,000	48,000	25,000,000	136,000,000	178,000,000
Leather manufacture.....	118,000,000	186,000	88,000,000	153,000,000	289,000,000
Woolen manufacture.....	297,000,000	219,000	77,000,000	203,000,000	358,000,000
Cotton manufacture.....	354,000,000	222,000	70,000,000	155,000,000	268,000,000

factures of all wooden, cotton and leather goods in persons employed, wages paid and values produced.

The principal centres of production of the leading commercial timbers of the United States may be briefly described as follows:

The white pine is distinctively a North-

FOREST INDUSTRIES AND MANUFACTURES USING WOOD.

Articles.	Capital.	Employees.	Wages.	Raw material.	Value of product.
Forest industries enumerated:					
Lumber and mill products.....	\$496,340,000	296,200	\$87,784,000	\$231,556,000	\$403,668,000
Timber products not manufactured at mill.....	61,541,000	46,100	11,354,000	11,007,000	34,290,000
Naval stores.....	4,063,000	15,300	2,983,000	3,506,000	8,077,000
Total.....	561,943,000	347,700	102,071,000	245,169,000	446,034,000
Manufactures practically all wood:					
Cigar boxes.....	3,374,000	5,500	2,134,000	3,567,000	7,092,000
Packing boxes.....	13,018,000	14,000	6,477,000	14,245,000	25,513,000
Carriage and wagon stock.....	13,028,000	10,900	5,208,000	1,388,000	16,202,000
Carpentering.....	81,543,000	140,000	94,524,000	137,847,000	281,195,000
Cooperage.....	17,817,000	24,700	11,665,000	2,497,000	38,618,000
Furniture factory products.....	66,394,000	63,900	31,471,000	38,795,000	94,571,000
Kindling wood.....	1,300,000	1,800	772,000	1,187,000	2,402,000
Lasts.....	907,000	800	572,000	391,000	1,239,000
Planting-mill products.....	120,251,000	86,900	48,970,000	104,927,000	183,682,000
Matches.....	1,941,000	1,800	344,000	925,000	2,194,000
Wood, turned and carved.....	7,826,000	8,400	4,267,000	3,947,000	10,940,000
Woodenware.....	2,712,000	3,100	1,237,000	1,099,000	3,598,000
Wood pulp.....	2,455,000	2,800	1,229,000	2,005,000	4,628,000
Wood carpet.....	323,000	300	155,000	214,000	512,000
Total.....	337,908,000	365,000	212,027,000	331,523,000	672,750,000
Manufactures in which wood represents about 50 per cent. of the raw materials: ^a					
Total.....	169,983,000	135,600	714,460,000	114,383,000	229,408,000
Wood percentage.....	89,991,000	67,800	35,730,000	57,192,000	114,704,000
Manufactures in which wood represents about 35 $\frac{1}{2}$ per cent.: ^b					
Total.....	321,059,000	214,300	123,588,000	148,578,000	318,218,000
Wood percentage.....	107,619,000	71,400	41,196,000	49,526,000	106,072,000
Manufactures in which wood represents about 10 per cent.: ^c					
Total.....	76,841,000	91,500	46,854,000	49,291,000	131,820,000
Wood percentage.....	7,684,000	9,300	4,685,000	4,929,000	13,182,000
Manufactures of wood:					
Total.....	543,402,000	513,400	283,638,000	443,170,000	906,708,000

^aIncludes carriages and wagon factory product, children's carriages and sleds, steam and street cars, coffins and burial caskets, chairs, wheelbarrows, sewing machine cases, artificial limbs, and refrigerators, and shipbuilding.

^bIncludes agricultural implements, billiard tables, railroad and street car repairs, furniture repairs, washing machines and wringers, organs and pianos.

^cIncludes blacksmithing and wheelwrighting, bridges, brooms and brushes, gunpowder, artist's materials, windmills, toys and games, sporting goods, lead pencils, pipes and pumps.

ern tree, reaching its best development in Michigan, Wisconsin and Minnesota, where it is the dominant species. It was once the leading commercial species of Pennsylvania, New York and Northern New England, but there it has been largely exhausted. In the South it is found only on the higher elevations of the Alleghenies and in limited quantities. The principal sources of supply at present are Northern Wisconsin and Minnesota. In Michigan there are small tracts of virgin white-pine forests, but over by

the greater part of the State not even a valuable second growth of white pine can be found.

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The bull pine (*Pinus ponderosa*) of the Rocky mountains and the Pacific coast forms the main supply of hard pine for local use in the West, while the gigantic sugar pine of Oregon and California furnish desirable soft-pine material. Scattered here and there in small areas throughout the Western country, notably in Idaho, is found the mountain white pine (*Pinus monticola*), which is capable

of being substituted for the other soft pines.

The long-leaf, or Georgia yellow pine, occupies the coast plain from North Carolina to Eastern Texas, being the dominant species over 100,000 square miles of territory. It reaches its greatest development in Western Louisiana and

the annual cut of 1,500,000,000 feet in Maine is of spruce. 500,000,000 feet is used in the paper-pulp industry yearly. Since 1853 the lumber industry has completely reversed its output. In that year the cut of pine on the Penobscot was 123,000,000 feet, and of spruce 78,000,000 feet. In 1892 the cut of pine was 29,000,000 feet and of spruce 120,000,000 feet. In New York of a total cut of 447,000,000 feet in the Adirondacks, 334,000,000 feet were spruce and about 28,000,000 feet pine.

Hemlock.—Pennsylvania and New York furnish the principal supply of hemlock lumber. The bark is used in tanning, and the logs are sawed into lumber, for which there is a constant demand as a substitute for white pine in rough construction. Hemlock is found throughout the Alleghanies as far south as North Carolina and Tennessee.

Bald cypress occupies limited areas extending throughout the Southern States. The most extensive cypress region is in Southern Louisiana and along the Mississippi and Yazoo rivers in Mississippi, in the vicinity of Mobile, Ala., around Apalachicola, Fla., and along the South Atlantic coast. A limited quantity of cypress lumber is also cut in the lowlands of South Missouri, Western Kentucky and Tennessee and Arkansas.

Red Cedar.—This tree has the greatest range of any American species, occurring from Florida to the State of Washington. The principal sources of supply are the forests of central and Eastern Tennessee, Northern Alabama and Florida. The wood is used for hollowware and the manufacture of lead pencils, and the mature trees are being rapidly thinned out; 5,000,000 feet of red cedar is used annually in the bucket factories. The pencil factories use about 500,000 cubic feet of soft clear material. No considerable area of red cedar for these manufactures exists anywhere in the country that has not been cutted.

Redwood is found exclusively in the coast range of California, where the standing timber of this kind is estimated at less than 25,000,000,000 feet, B. M.

Oak.—Among the fifty species of oaks included in our forest flora only about a dozen are commonly cut for lumber, and these are sold in the market under two names—white oak, of which *Quercus alba*, the species, is the type, and red oak, of which *Quercus rubra* is the typical form. According as the other commercial species more nearly resemble one or other of the species named, they are classed as "white" or "red." Formerly only the white oak was cut, as the wood was used almost exclusively for construction and for cooperage. Of late years oak has become a fashionable wood for furniture-making and interior finish, and the red oaks are found quite as useful for these purposes and now have a recognized standing in the markets, though commanding a lower price than the white oaks. The red and white oaks are found in all American forests east of the Rocky mountains, and originally large trees were common everywhere. The Northern forest has been more heavily culled than the Southern, so that now the principal sources of supply are the mixed forests south of the Ohio and Missouri rivers, with Kentucky, Tennessee and West Virginia probably in the lead. Arkansas forests are rich in oak, and the States of Minnesota, Wisconsin, Michigan and Indiana supply a large demand. On account of the number of species, and the fact that the oaks only grow in mixed forests, no estimate of the standing timber can be made. The present annual cut is estimated at 3,000,000,000 feet, B. M., of which more than half comes from States south of the Missouri and Ohio rivers.

Hickory.—This wood is used principally in bolt sizes for wagon stock. Like the oaks, several species are sold under the one commercial name, and the genus has a wide distribution throughout the Eastern forests. The principal sources of supply are Kentucky and Tennessee, though much good hickory is cut in Arkansas and West Virginia. The forests of Indiana, once the principal centre of the hickory trade, are now largely exhausted. The annual cut is estimated at 250,000,000 feet.

Ash.—The principal source of supply of ash timber is Western Tennessee and Kentucky, though tracts rich in ash are found in the rich mountain valleys of the eastern parts of these States and in West Virginia. Much ash is also cut in the hardwood forests of Michigan and Wisconsin. Memphis is the leading market for ash. The present annual cut is estimated at 350,000,000 feet, considerably less than was manufactured fifteen years ago.

Poplar.—The principal centres of poplar production are Kentucky, Tennessee and West Virginia, though it occurs in greater or less abundance throughout the hardwood forests of the Ohio valley. It never makes a pure forest, being scattered among other broad-leaved kinds, and reaching its best development in the rich, moist valleys of Western Tennessee. About 500,000,000 feet is cut annually.

Cottonwood.—The cottonwood attains its highest development in the moist, fertile bottom lands of Western Tennessee and Mississippi, and in Arkansas. This species has the widest range of any broad-leaved economic tree of the American forest, but commercially it is only important in the lower Mississippi valley. Cottonwood has only recently made its appearance in the lumber trade, and much of it is still sold as poplar, there being a prejudice against the wood because of its great tendency to warp under old systems of drying. As placed on the market today its merits give it a recognized standing. The cut is estimated at between 150,000,000 and 300,000,000 feet.

To Investigate Mexican Trade.

President Search, of the National Manufacturers' Association, is taking the proper steps to enlighten the manufacturers of this country regarding the trade with foreign countries. A special delegation was sent out some time ago to report on the trade advantages of Japan, Mr. Porter being at the head of the committee. Another special expedition has just been sent out to Mexico to interview President Diaz regarding the exposition which the Mexican government propose to hold in 1897. They will also visit the principal cities of Mexico and report as to the outlook for trade with that country. This delegation includes Mr. Chas. Davis, president of the Davis & Egan Machine Tool Co.; Mr. Robert D. McGowan, vice-president of the John H. McGowan Co., both of Cincinnati. These are all practical business men, well posted on foreign affairs, and their report to the National Manufacturers' Association should be of great value to the manufacturers of the United States. It is the intention of the National Association to send out delegations to all other foreign countries. This is a live enterprise, worked in the right direction, and will give the manufacturers of the United States a practical lesson of what can be done by concerted action.

A letter has been received by a company at Birmingham, Ala., from Rome, Italy, inquiring about the quality and price of Alabama iron; also freight rates from Birmingham to Rome.

The C. & O. as a Developer.

By Thomas P. Grasty.

The man who is a stumbling-block in the way of what benefits his country is as much a traitor as was Benedict Arnold, unless, forsooth, his ignorance be accepted as his excuse. And if there be one particular section of these United States where little mercy should be manifested to this species of treason, that section is the South.

And yet the man who is most active and noisy in propagating this kind of treason generally pretends to be not only a patriot, but the only patriot in his part of the country, claiming to be actuated by no other motive than the most unselfish solicitude for the "rights of the people."

This fellow must, like Don Quixote, have something to attack, and as most people imagine that freight and passenger rates are too high, he works that popular error for all there is in it, inciting the unthinking to a degree of anti-railroad hostility which, but for the sober second thought that always saves the Anglo-Saxon from idiotic excesses, might lead to the annihilation of the one thing which the people could least afford to lose.

Even a bad railroad is better than none at all. A good one is the only institution known to modern civilization that is a direct blessing to all sorts and conditions of men, aye, of women and children, too, within the zone of accessibility.

The foregoing observations have doubtless occurred time and again to nine out of every ten fair-minded men familiar with cause and effect from the standpoint of the greatest good to the greatest number; but they have been emphasized in the writer's mind by a recent trip over a line of rail that in ten years' time has grown from an obscurity into one of the most magnificent systems in point of physical condition, equipment and management, if not in mileage, to be found in all America. And what makes this road one of special interest to the readers of the Manufacturers' Record is that it forms the only east and west trunk line in all the South, and has proven a tremendous developer in the tier of Southern States made up of Kentucky and the two Virginias.

Through a powerful Western ally it is making new markets for the coal and iron of the Virginias and Kentucky, while making at its Eastern terminus a seaport which in the matter of grain export is the rival of New York. At the same time, by bringing thousands of through passengers, who see with their own eyes the coal region of West Virginia, as evidenced by coke ovens ablaze, and the iron region of Virginia, as evidenced by Low Moor, always in blast, and the beautiful Shenandoah, and to the eastward picturesque Piedmont, the James river valley and the historic ground on toward Washington and all around Richmond. It is worth a great deal to any country to have thousands of wide-awake enterprising people simply hauled through it, provided it is a country that will stand inspection.

These people would never come through the tier of States referred to—Kentucky and the two Virginias—if the Chesapeake & Ohio did not run as fine trains as the Pennsylvania or any other east and west trunk line.

The fast noonday special out of Chicago on the "Big Four," and St. Louis, reaches Washington early in the next afternoon—these two "Big Four" specials, one from Chicago, the other from St. Louis, carrying through sleepers from those great terminal points via the Chesapeake & Ohio on to the East

through one of the most attractive regions traversed by any of the great trunk lines.

Now, when one considers the benefits to this part of the South, now literally brought in touch with the great cities both of the East and the West by the evolution of one railroad from an unreliable, slow-going and none-too-safe "obscurity" into a line that competes with the Pennsylvania and the New York Central—when one considers the benefits that Kentucky and the Virginias are receiving from such a developing agency, the wonder is that the fellow who stirs up hostility to railroads, in this region at least, is not taken out by the people and either "tarred and feathered" or ridden on a rail.

The Chesapeake & Ohio road has under its present management built up a coal traffic from the New River district to New England worth in cash to the operators and the miners and the farmers and the merchants from the mountains to sea nearly \$2,000,000 a year, not one penny of which came into the Virginias until this railroad and the Norfolk & Western began systematically to encourage the shipment of coal to New England by making lower rates than were ever made before for hauling anything a like distance. The Chesapeake & Ohio is pushing this same policy so as to build up a steady demand for these smokeless coals in the great Western cities.

It has been through the enterprise of the Chesapeake & Ohio that the people of central Kentucky and of Louisville have been enabled for the first time to come from the East practically in a single night without changing cars. Since the "Shelby Cut-off" has been completed there is no changing at Huntington or at Cincinnati in order to get to Lexington or Louisville on the fast express which leaves Washington every afternoon. This train reaches Lexington in time for breakfast, and the new "cut-off" saves nearly an hour's time, besides giving the passenger a view of a much finer country than by the old route around by La Grange. Heretofore there was one train a day between Washington and Louisville carrying a through sleeper. Now there are two, and the substantial old Kentucky town of Shelbyville is now for the first time really on a railroad.

Wants Mica and Cobalt.

Mr. F. Barracough, Bennettsville, S. C., desires to secure information as to the address of mines or miners producing cobalt and mica for English inquirers.

The opportunities the South offers for the manufacture of bicycles has been taken advantage of by the Atlanta Bicycle and Machine Works, which has been formed in that city, with \$100,000 capital, to construct wheels. A. J. West and S. W. Wilkes are among the incorporators.

Wise Men

read the advertising pages of the Manufacturers' Record carefully because they are always sure to find something of value; it may be a special sale, or an opportunity for investment, or some new machinery, or some one looking for a location for a factory, or a thousand and one things advertised that may concern you. Every man ought to *study* newspapers, not simply glance over them, but examine in detail the Manufacturers' Record, for instance, and he will be sure to find something that can be made profitable in his business. In its news columns and in its advertising pages he will find matter that may prove invaluable in his business operations.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BALTIMORE & OHIO.

Its Receivers Greatly Impressed with West Virginia's Resources. Coal Mining and Other Industries to Be Encouraged—How Baltimore Will Be Benefitted—More Freight Facilities for Baltimore Necessary.

The receivers of the Baltimore & Ohio Railroad Co., Messrs. Jno. K. Cowen and Oscar G. Murray, have completed their first official inspection of the system, and the Manufacturers' Record with this issue presents a statement of their impressions of the present condition of the Baltimore & Ohio, the possibilities for developing business in the territory of which it is the outlet, the improvements which are contemplated since the receivers examined the road, and especially their views on the great source of traffic afforded by the timber, coal and ore deposits of West Virginia. Relative to the roadbed itself they said:

"We found the roadbed in very good shape, with the exception of a short mileage. It will require but little work to place it in first-class condition. The improvements under way at Cumberland are such that we think it advisable to complete them. The shops at Mount Clare are also in good condition, being well equipped with machinery and tools. The different buildings are in good shape. All the shops will continue on full time, and we intend placing more men at work at Mount Clare as soon as the supply of material for repair justifies it. As an indication of the increase in repair work, our report for March shows that \$217,000 was paid in the department of maintenance of equipment, an increase of \$57,000 over March, 1895, or nearly 25 per cent. The bids are now in for rolling stock specified in the Manufacturers' Record, and contracts will be let in a few days.

"Regarding the possibilities for traffic, our opinion, already expressed, that the business along the line of the road is sufficient to more than pay its operating expenses and charges, is not only confirmed, but emphasized. There is no question whatever on this point. The freight traffic from the Connellsville section alone is very great. West Virginia, however, represents a very large territory which as yet is but little developed. Many millions of dollars can be invested in the lumber regions of this State alone at a profit. In some of the timber tracts hundreds of saw mills can be built, to be operated for years without exhausting the supply in their immediate locality, while there are large bodies of timber land adjacent to the Baltimore & Ohio, and still more extensive tracts are on the line of the Camden and Davis systems, which are practically feeders of our system. While we made no numerical estimate of the quantity of uncut timber or the extent of the forests in West Virginia, the examination from the special train would be sufficient to convince the most skeptical of the opportunities which are presented for lumbering.

"Even more can be said of the coal-fields. The coal supply within sight of the Baltimore & Ohio seems to be limitless, and miles and miles of territory yet remain to be opened up by mining companies. But this represents only a small portion of the supply, as we are informed that by going a few miles back from the railroad even larger beds could be developed.

"Realizing as we do the great possibilities for industrial development in West Virginia, it will be the policy on the part of the Baltimore & Ohio Company to extend every encouragement to capitalists and manufacturers who desire to enter this field. We shall, whenever necessary, build sidings or switches to any industry which will warrant it at our own expense. Whenever branches of five, ten or fifteen miles or longer are required, favorable arrangements for their construction and operation can no doubt be consummated. We shall encourage such construction in every consistent way.

"As a large number of the independent railway lines in West Virginia turn their traffic over to the Baltimore & Ohio, we recognize them as valuable adjuncts to the system, and will therefore make as liberal arrangements with them as possible in receiving and handling freight. The West Virginia Central & Pittsburgh Company has intimated a desire to allow us to haul a considerable portion of its extensive coal trade to tidewater and other markets, and it will be the policy of the Baltimore & Ohio to obtain as large an amount of this business as possible and to divert it through its proper channels to Baltimore. In fact, we might say that this city should have much more extensive relations with the West Virginia coal and lumber trade than it now enjoys, and we believe that there are very great opportunities for Baltimore people to increase these relations if they interest themselves in the matter.

"The yard room at Baltimore is entirely inadequate. With the amount of freight which will be hauled over this division an extensive yard should be afforded at some point a few miles from the city where switch engines could haul cars to the docks and other transfer points within an hour. The question of more sidings and yard room will be taken up in the near future. The terminals at Locust Point have not been examined as yet, but it is probable that the company will need additional warehouses for its ocean steamship business, and whether or not another elevator will be required is a question. Our impression concerning Baltimore as an export point and terminal, already referred to in the Manufacturers' Record, is more than ever confirmed, as we note the location of the city on our system.

"While we have not taken up the question of building the proposed down-town passenger station in Baltimore as yet, it is intended to complete the Mount Royal station at the earliest moment, and to give the traveling public as good facilities as possible by the train service to New York, Philadelphia and Washington on this route."

A Rumor Denied.

Several dispatches from Raleigh and Asheville, N. C., have been published in the daily papers to the effect that the Seaboard Air Line had determined to build a road to connect Asheville with the Carolina Central division at Rutherfordton, N. C. President Hoffman, of the Seaboard, has informed a representative of the Manufacturers' Record that there is no truth whatever in the report.

Made Its Own Cars.

The Meridian (Miss.) Street Railway Co., which has recently built a trolley line in that city, built its own motor cars also, which are of a modern type, and compare favorably with the cars made elsewhere in the country. There is no reason why the South cannot support a street-car-building plant. Its purchases of rolling stock within the past year has aggregated a large sum, most of which was paid to Northern companies.

The Florida Keys Road.

Relative to the project to build an electric road along the Florida Keys, connecting Key West with the mainland, Secy. E. M. Martin, of the Tropical Electric Co., Key West, which is promoting it, writes the Manufacturers' Record as follows:

"There are some Northern parties interested rather heavily in this matter, but at present our plans are in that stage that we consider it policy not to make public any of the details. We hope to be able to begin work on that within the next three or four months."

Choctaw, Oklahoma & Gulf

The plan to exchange preferred stock for general mortgage and income mortgage bonds of the Choctaw, Oklahoma & Gulf Railroad Co. is practically a success, as all the large interests have agreed to come into the scheme, and the syndicate has been formed to underwrite the preferred stock. The company intends to issue 80,000 shares of preferred stock of the par value of \$50, which shall be entitled to dividends in advance of the common stock, up to 5 per cent. per annum. The purpose of this issue is to enable the company to provide for the extinguishment of the car trusts, and for immediate extension of its present line to a connection with the Kansas City, Pittsburg & Gulf Railroad, and to put the company in a position where, should the necessities or requirements of its business justify, future extensions can be made through the medium of a portion of its present outstanding bonds, which will be acquired by means of the exchange.

West Virginia to the Lakes.

What is said to be a scheme to form a new route from the timber and coal tracts of West Virginia to the lakes is being promoted by the Michigan, Ohio & Southern Company, which is the new title for the Columbus, Lima & Milwaukee. Directors of the company are Marcus Pollasky, Lester O. Goddard and James T. Hall, of Chicago; H. A. Conant and Wm. F. Jarvis, of Detroit; D. J. Cable and W. L. Parmenter, of Lima, Ohio; Edward P. Hooker, of Defiance, Ohio, and G. A. Garretson, of Cleveland. Marcus Pollasky will be president; Lester O. Goddard, vice-president; James T. Hall, treasurer, and D. J. Cable, secretary.

The new company will absorb all the interests and property of the West Virginia, Ohio & Western, Columbus, Lima & Milwaukee, Detroit & Toledo Short Line, Central Michigan, Michigan & Ohio Belt Line and several other short railroads in Michigan and Ohio. It is stated that work will be commenced at once on those portions of the road from Columbus to Defiance and from Detroit to Toledo.

Extensive Improvements.

The Atlanta & West Point and the Western Railroad of Alabama have recently made reports to the Alabama board of assessment which show how these lines have been improved since the election as president of George C. Smith. They have used about \$150,000 within the last twelve months for equipment, such as new passenger, dining and other cars, made at their own shops. They have relaid twenty-five miles of track with 2500 tons of 70-pound steel rails, and will add 3000 tons more during the summer. Many new trestles, bridges and depot houses have been rebuilt. This system, being in healthy financial condition, has greatly assisted in the upbuilding of several new towns along its line, especially so between West Point and Atlanta. President Smith, in addition to

greatly increasing the fruit and vegetable-growing industry in that section, has established experimental tobacco-growing farms at La Grange and Opelika, Ala., with competent men at the head, and expects to continue in the line of these improvements, thereby greatly adding to the wealth and population of the section traversed by his lines.

A Possible Combination.

The coal and timber lands in Eastern Kentucky, along the valley of the Big Sandy river, are attracting considerable attention from prospectors and railroad men. As yet no transportation facilities are afforded this section. The nearest railroad is a branch of the Chesapeake & Ohio, extending from the Louisville division south to Richardson. A party of railroad men and capitalists have recently visited this section of the State. They included George H. Ingalls, J. M. Gill and H. Pierce, of Huntington, W. Va.; C. K. Lawrence, of Ashland, Ky.; W. J. Hendricks, of Frankfort, Ky., and Chas. A. Heller, of Boston. The last named is identified with the Ohio River & Charleston, while several of the others are interested in the Chesapeake & Ohio. The visit of these parties is somewhat significant, as indicating the possibility of a new railroad combination. The Northern or Tennessee division of the Ohio River & Charleston, which terminates at Johnson City, Tenn., if extended, would make a direct connection with the C. & O. and pass through the territory described. As is well known, the Carolina and Tennessee divisions of the Ohio River & Charleston are not connected, and it is a part of the plan of reorganization to consolidate them. By making this connection and building the extension into Kentucky, a new route would be formed from the Ohio river to the seaboard through Kentucky, Tennessee and North and South Carolina. About two years ago the O. R. & C. engineers made a survey of the line in Kentucky. The Ohio River & Charleston and the Cincinnati, Portsmouth & Virginia are largely owned by the same parties, and the completion of the extensions noted would give the two lines a connection which would be very valuable.

Florida East Coast Line.

The completion of the Florida East Coast Line to Miami, Fla., makes that town the most southerly railway station in the United States, and finishes for the time being one of the most extensive pieces of railroad construction in the country. Under its original title, the Jacksonville, St. Augustine & Indian River, it comprised the Jacksonville, St. Augustine & Halifax, the St. John's & Halifax River, the St. Augustine & Palatka and the St. John's Railway, extending to Jacksonville, St. Augustine, Palatka, and on the east coast of Florida to Sebastian. Under the direction of Mr. Henry M. Flagler, who foresaw the opportunities for developing the State by such a railway line, the work of extension south was begun. The first extension, eighty-four and one-half miles, completed the road to Lake Worth, in 1894. The extension from Lake Worth to Miami, sixty-seven miles, was begun in 1895. This gives a line 367 miles long from Jacksonville to what is practically the end of the Florida mainland, although, as the Manufacturers' Record has stated in previous issues, its ultimate extension to Key West along the Florida Keys is contemplated and may be carried out.

The Florida East Coast Line has already attracted many tourists to this section of the State, and has opened several new winter resorts. At Palm Beach Mr. Flagler has built the Royal Poinciana Hotel, one of the finest in the South.

Another, to be constructed at Miami, is to be called the Royal Palm. It will contain 350 rooms and have a capacity for 500 guests. A number of colonies, attracted by the resources of Southeast Florida, are locating there, and already the country between Palm Beach and Miami is attracting much attention from settlers.

Southern Officials Honored.

At the annual meeting of the American Railway Association at Cincinnati, Mr. E. D. T. Myers, of the Richmond, Fredericksburg & Potomac, was honored by being elected president, and Vice-President W. H. Baldwin, of the Southern, as a member of the executive committee. The companies in the association operate about 85 per cent. of the railway mileage of the United States. When it was organized ten years ago it comprised fifty-four companies. Now it includes 235 companies, operating nearly four times as many miles of road as in 1886.

To Use the Gate System.

The Southern Pacific Company has decided to adopt what is known as the "gate system," which is now in use on the Chicago & Alton road. By the system all passenger cars are barred with gates, at which are stationed gatemen, to whom all passengers must exhibit their tickets before boarding the train. The service will require two gatemen on every train, and each gateman will operate two coaches. In addition to the gatemen, there will be a conductor and train agent on each train. Under this system the gatemen will collect the tickets, instead of the conductors, as heretofore. The conductor will cancel all tickets by punching them and return same to passengers, who will deliver them to the gatemen before leaving the train upon arrival at destination.

Ready for Service.

The steamer Georgia, of the Bay Line, has resumed her regular trips between Baltimore and Norfolk. While in dock the machinery was completely overhauled, the woodwork repainted inside and outside, and the staterooms received particular attention, new furnishings and carpets replacing the old. The social hall and smoking-room have also been embellished with new panels, and painted in delicate tints of white and old gold.

Port Royal Steamers.

A dispatch from Port Royal, S. C., announces that a monthly line of steamships will be operated between that port and Liverpool. The passenger steamers Yucatan and Texan, of the West India & Pacific Mail Line, have been secured for trips during the summer, beginning on May 20. These steamers are of 2500 tons net register, and with a capacity of 5000 tons of freight. They are handsomely fitted up, and each can carry fifty first cabin passengers. The arrival of the first two boats has been anticipated, and their cargoes of cotton, wheat, corn, flour and lumber will be on the wharves waiting their arrival.

Railroad Notes.

It is stated that the Central of Georgia will build 200 freight cars at its Savannah shops.

The Chesapeake & Ohio has decided to have a series of trade excursions to Louisville from points along its Kentucky division. They will begin about May 1.

Under the consolidation of the Knoxville, Cumberland Gap & Louisville with the Southern system, Clarence Cary, the former receiver, will be president of the Knoxville line.

Robert E. Parsons, who for some years has been city passenger agent of the Chesapeake & Ohio Railroad in Louisville, has been appointed district passenger agent of the same road.

F. P. Olcott, of New York, has been elected president and a director of the Galveston, Houston & Henderson road. The choice is in accordance with an agreement by which the Missouri, Kansas & Texas and the International & Great Northern have entered into joint use of the Galveston, Houston & Henderson.

At the annual meeting of the board of directors of the Morgan's Louisiana & Texas Railroad & Steamship Co. (Southern Pacific system) the following officers were elected to serve for the ensuing year: A. C. Hutchinson, president, New Orleans; J. G. Schriever, vice-president, New Orleans; Jno. B. Richardson, secretary and treasurer, New Orleans; I. E. Gates, assistant secretary, New York; Geo. Watkins, transfer agent, New York.

Three directors of the Georgia Southern & Florida Railroad have resigned. They are President John Gill, of the Mercantile Trust & Deposit Co., of Baltimore; C. L. Bartlett, of Macon, and Charles D. Fisher, of Baltimore. At the quarterly meeting of the directors, held in Macon, A. S. Pendleton, a merchant of Valdosta, Ga., and W. A. Merryday, a merchant of Palatka, Fla., were elected directors in the place of Messrs. Gill and Bartlett.

J. Adolph Buisson, of New Orleans, is the inventor of a trolley-car warning signal which has been tested in that city with success. The electric signal is effected by means of a double trolley strung alongside of the regular wire. Upon the end of the trolley is attached an extra wheel, which is arranged to run on this auxiliary trolley. The extra wire beginning, as it does, a short distance from each corner, connects with little bells in glass boxes attached to posts on each corner. As soon as the auxiliary trolley hits the wire the current is conveyed from the regular trolley to it, and thence to the corner, where the signal is given to vehicles and pedestrians that a car is coming within the block.

A Young Men's Business League has been organized at Tallahassee, Fla., with the following officers: George W. Saxon, president; Robert Gamble, vice-president; W. G. Powell, secretary; Jacob R. Cohen, treasurer; W. C. Lewis, F. C. Gilmore, John T. Bradford, W. L. Moor and T. B. Byrd, directors.

The people of South Carolina have appointed the following committee to prepare a plan to exhibit the resources of the State at the Chicago-Southern States Exposition: J. C. Hemphill, of Charleston, chairman; A. C. Sheffer, Walterboro; Wm. A. Courtenay, Newry; W. B. Smith Whaley, Columbia; A. H. White, Rock Hill; H. W. Finlayson, Cheraw; W. D. Evans, Bennettsville, and A. Moses, Sumter.

The Tennessee board of prison commissioners have determined to extend the market for the coal mined by the State near Harriman. They have just closed a contract with Robert Morrison, of Cincinnati, to act as sales agent in that city for the output of the Brushy Mountain mines. A large coal-yard will be opened in Cincinnati. Other distributing points for Tennessee coal, where the board of commissioners have opened sales yards, are in Chattanooga and Atlanta. At present the Brushy Mountain mines are turning out about fifteen carloads daily, but their capacity is sixty carloads per day.

FINANCIAL NEWS.

Rare Chance for Investment.

Of the \$250,000 car-trust bonds lately issued by the Seaboard Air Line, the Mercantile Trust & Deposit Co. of Baltimore is now offering \$155,000 at par and accrued interest. The history of car-trust investments shows that they are among the most gilt-edged securities that can be obtained. These bonds are the joint obligations of the Seaboard & Roanoke Railroad, the Raleigh & Gaston Railroad and the Raleigh & Augusta Railroad, which form the combination of the Seaboard Air Line system. They are issued in series of \$25,000, each running from one to ten years—the entire property purchased remaining as security until the last series is taken up. The intrinsic merit of such car-trust bonds as these justifies the purchase by the most conservative investors, and in addition to that, the steady increase in the earnings of the Seaboard system and the large surplus of earnings over and above all its fixed charges adds to the attractiveness of these securities.

Official Bank Changes.

Arkansas National Bank of Hot Springs, Ark.—Chas. N. Rix, president.

German National Bank of Newport, Ky.—Henry Weidner, president; J. M. Southgate, vice-president;

Farmers' National Bank of Augusta, Ky.—N. J. Stroube, vice-president.

First National Bank of Bedford City, Va.—O. C. Bell, vice-president.

New Corporations.

Business men at Asheboro, N. C., may form a corporation to open a bank at that place.

The Lynchburg (Va.) Trust and Savings Bank, President J. R. Gilliam, has opened a branch at Bedford City, Va.

The Merchants' Bank has been organized at Jackson, Miss., by the election of the following officers: President, J. M. Stone; vice-president, B. Lemly; cashier, R. Griffith.

The Union Savings & Trust Co., with a capital of \$200,000, has been organized at Huntington, W. Va., for the purpose of insurance of every kind and dealing in bonds. The incorporators are J. M. Gill, A. T. Stewart, A. C. Thomas, John W. Ensign, C. W. Campbell and M. C. Mimick, all of Huntington.

The comptroller of the currency has approved the application for the National Bank of Goldsboro, N. C., with a capital of \$50,000. The following citizens of Goldsboro are interested: William R. Allen, Nathan O'Berry, Wm. T. Yelverton, D. Robert Kornegay, Broadus H. Griffin, William T. Dortch, Marcellus J. Best, Geo. C. Royall, A. Roscower, Ernest B. Dewey, J. W. Norwood, of Wilmington, is also interested in the bank.

New Securities.

The German-American Bank, of Stuttgart, Ark., has increased its capital stock from \$10,000 to \$14,000.

Kansas City, Mo., will receive bids until June 4 for \$250,000 in 4 per cent. school bonds. Address the Kansas City School Board.

The Mutual Life Insurance Co. of New York has purchased \$50,000 of Augusta, Ga., 4½ per cent. refunding bonds at 104.07 and interest.

L. P. Hazen & Co., of Cincinnati, Ohio, have offered to build the proposed courthouse at Winston, N. C., and will take \$55,000 worth of 6 per cent. bonds in payment.

The State of Maryland is about to sell \$600,000 in 3½ per cent. bonds to be issued

for building purposes. State Treasurer Thomas J. Shryock may be addressed at Baltimore.

Interest and Dividends.

The Salisbury (N. C.) Cotton Mills Co. has declared a quarterly dividend of 2 per cent.

The Irish-American Investment Co., of Augusta, Ga., has declared a dividend of 6 per cent.

The St. Charles Street Railroad Co., of New Orleans, has declared a dividend of 1½ per cent.

The Galveston Suburban Improvement Co. has declared a semi-annual dividend of 4 per cent.

The Alexandria (Va.) Loan Association has declared a semi-annual dividend of \$3.50 per share.

The New Orleans & Carrollton Railroad Co. has declared a quarterly dividend of \$1.50 per share.

The Whitney Iron Works Co., of New Orleans, has declared a dividend of 4½ per cent. on nine months' business.

Financial Notes.

R. C. Ford has secured control of the Manufacturers' Bank, at Middlesborough, Ky.

Comptroller Eckles has designated Houston, Texas, as a reserve city for national banks. It is one of the four in the South, Baltimore, New Orleans and Savannah being the others.

Messrs. Speyer & Co., of New York, in consequence of the appointment of receivers of the Baltimore & Ohio Railroad Co., and with a view to the protection of the interests of the holders of the 5 per cent. bonds of 1925 (loan of 1885), invite such holders to deposit their bonds, with all coupons attached, with them on or before June 1 next, subject to an agreement between Speyer & Co., of New York, Speyer Bros., of London, and the depositing bondholders, copies of which may be obtained on application at their office.

They give notice that on terms of the agreement, the coupons and interest installments maturing August 1 on deposited coupon and registered bonds in case the Baltimore & Ohio Railroad Co. should make default in paying the same on maturity, will be bought by them. Trust receipts will be given for bonds deposited, exchangeable for engraved bearer certificates, for the listing of which application will be made to the New York and London Stock Exchanges. No charges against depositing bondholders for their services will be made by the bankers.

Important Mining Undertaking in Alabama.

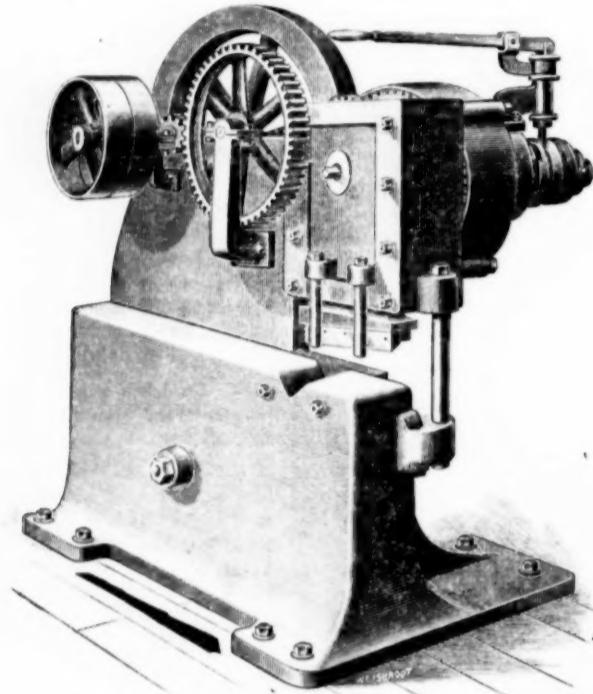
Gen. J. W. Burke, who, as receiver and general manager of the Chattanooga Southern Railroad, has made such a decided success in building up that property and developing the mineral interests tributary to it, has resigned to accept the presidency and general management of the Tredegar Mineral Railway & Iron Co., of Jacksonville, Ala. This company owns near Jacksonville what is regarded as one of the most extensive brown-ore properties in the entire South, and in connection therewith several miles of railroad. It is proposed to extend the railroad and open up the iron-ore beds on an extensive scale, shipping ore to furnaces in Alabama and Tennessee. It is claimed that these ores are probably better adapted to the manufacture of basic open-hearth steel than any other ore property in Alabama.

A recent shipment of Tennessee marble consisted of a carload consigned by the Tennessee Producers' Marble Co. to Geo. E. Crain & Co., Sydney, Australia.

MECHANICAL.

Universal Geared Power Shear.

Illustrated herewith is an improved double-gear universal power shear for cutting one-half-inch plates. By carefully examining the construction of this machine it will be observed that the gearing is arranged so that the operator can get close up to his work and yet be in no danger from the teeth—a valuable feature. The front gear is encased and fas-



UNIVERSAL GEARED POWER SHEAR.

tioned to the housing in a substantial and mechanical manner. The clutch is automatic, and stops when knife is at highest point. It can be operated from most any position, the lever being almost universal. These advantages will commend themselves to any practical mechanic. This machine is also built heavier to cut five-eighths and three-quarters inch plates, with or without engine. It is made by the Wais & Roos Punch & Shear Co., 456-464 Plum street, Cincinnati, Ohio.

An Electrically-Operated Bicycle Factory.

The number of factories operated entirely by electricity and the motor is receiv-

The electrical system employed is the monocyclic system developed by the General Electric Co., which allows, within certain limitations of distance, of the economical operation by the single-phase alternating current of motors and lights from the same circuit, without in any way interfering with the regularity of the lights. For long-distance transmission the three-phase system of the same company has been found economical.

The current to operate the Miami Company's plant is brought about a mile by

two of ten horse-power and two of five horse-power. One of the ten horse-power motors is set up in the drillroom and runs a shaft from which belts drop to twelve large and three small drill presses, two cone grinders and four small milling machines. In addition, it operates one band saw, one circular saw and one wood-turner's lathe in the pattern-room adjoining.

All these motors are of the General Electric induction type, without commutator, collector or moving contacts. They are set up on platforms swung from rafters in the rooms, an arrangement rendered possible by the fact that they require no attention beyond an occasional oiling, and thus occupy no floor space whatsoever.



FIG. 2—MIAMI CYCLE & MANUFACTURING CO.'S PLANT.

The other ten horse-power motor is in the frame-making department, where it drives three large punch presses for the manufacture of handle bars, seat posts, etc.; three large drill presses, four small ones, two frame assembling tables, three small milling machines, two emery grinders, one swaging machine, four stock machines, two tooth cutters and one double polishing lathe.

The introduction of the induction motors into these works was the result of pure conversion. Skeptical at first, the company, willing, however, to allow a trial, permitted the installation of a twenty horse-power motor as an experiment. It reached the factory in September, 1895; was put into service in the machine-room, and ran the machines for the night shift. The experiment was a

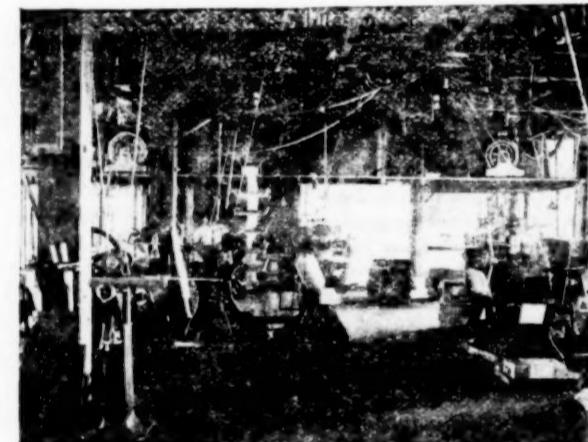


FIG. 3—CORNER OF MACHINE ROOM SHOWING INDUCTION MOTORS.

A large portion of the power coming into the factory is used in the polishing-room, occupied by thirty-five double polishing lathes, operated by two thirty horse-power motors. Another thirty horse-power motor drives a 48-inch exhaust blower, which carries away the dust from the polishing-room. In the assembling department a five horse-power motor operates a freight elevator of 1500

severe test. It ran over 300 feet of three-inch shafting, 172 belts, five screw machines and seventeen other machines, such as drills, lathes, etc. The usual course was to add machine after machine until the motor stopped. One or two would then be thrown off, and under an excessive overload, which brought it within reach of breaking down, the motor continued to run for its shift of ten or

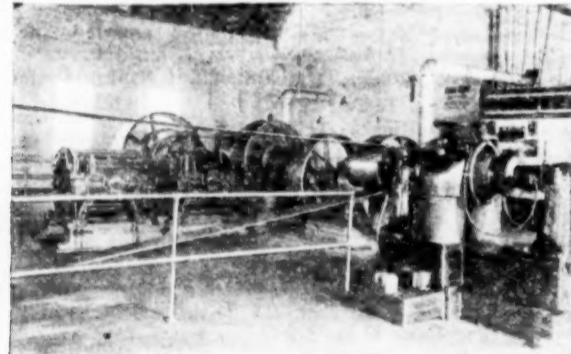


FIG. 1—INTERIOR GENERATOR STATION, MIDDLETOWN, OHIO.

ing important additions as the benefits of this power become better and more generally recognized among manufacturers.

One of the latest converts is the Miami Cycle & Manufacturing Co., of Middletown, Ohio, which operates an extensive factory, employing from 500 to 600 operatives. From this factory are turned out daily about 200 bicycles, and in giving to the wheels their high degree of excellence the company acknowledges the service rendered by electricity. Illustrations herewith show the features of this installation.

each belted to a long line of shafting about 180 feet long, carrying eighty belts. One of these motors is used to drive fifteen lathes, four shapers, six milling machines, three water emeries, one planer, one die sinker, two universal grinders, two gear cutters and two drill binders. The other two operate thirty-five screw machines, one oil separator, one oil pump and two high pressure blowers, giving air to the forges in the blacksmith shop.

The circuits running north bring current to three thirty horse-power motors,

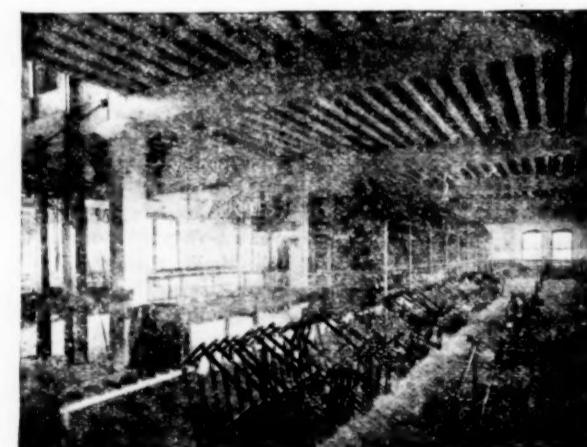


FIG. 4—PART OF ASSEMBLING ROOM SHOWING MOTOR FOR ELEVATOR.

pounds, at sixty feet per minute capacity, running up and down through the room. This five horse-power motor, which was at first deemed too small, not only operates the elevator satisfactorily, but also has sufficient power left to drive five small drill presses. The other five horse-power motor drives a four-kilowatt plating dynamo.

twelve hours. No accident happened to it during the two months this course of treatment continued. Its missionary work was successful. It was purchased by the Cycle Company, which ordered eight others at once, to be sent by express, afterwards increasing its order to nine. The constant speed given to the machinery by the motors has enabled the

general
manufacturers
from
rental
space

company to turn out a wheel with workmanship of peculiarly high quality, and its success has called for an enlargement of the works, which are entirely lighted with lamps taking current from the same monocyclic generator.

In addition to the load at the Miami Cycle Works, the generator supplies current to 500 or 600 lights throughout the town, and 650 incandescents in the Sorg Opera-house. With fifty horse-power in motors and 400 incandescent lamps burning at the cycle works, and as many in the city, the lights in the opera-house burn brightly and without flickering.

Dean Bros.' Pump Works.

One of the best planned industrial establishments in the country is the new plant of the Dean Bros.' Steam Pump

fluffy, so that they will readily soak up oil and hold it, and the braiding of the wire, being quite open, permits the oil to flow readily from the fibre and carry along with it the graphite to the piston-rod when heated.

Beside serving to hold the soft, fluffy materials together, the wire adds to the lasting qualities of the packing, both by its own resistance to wear when properly lubricated, and by reason of its protection of the fibres, from being blown out of the stuffing-box by steam or water pressure.

This packing is used in the same way as common fibrous packings, and needs no special handling or care.

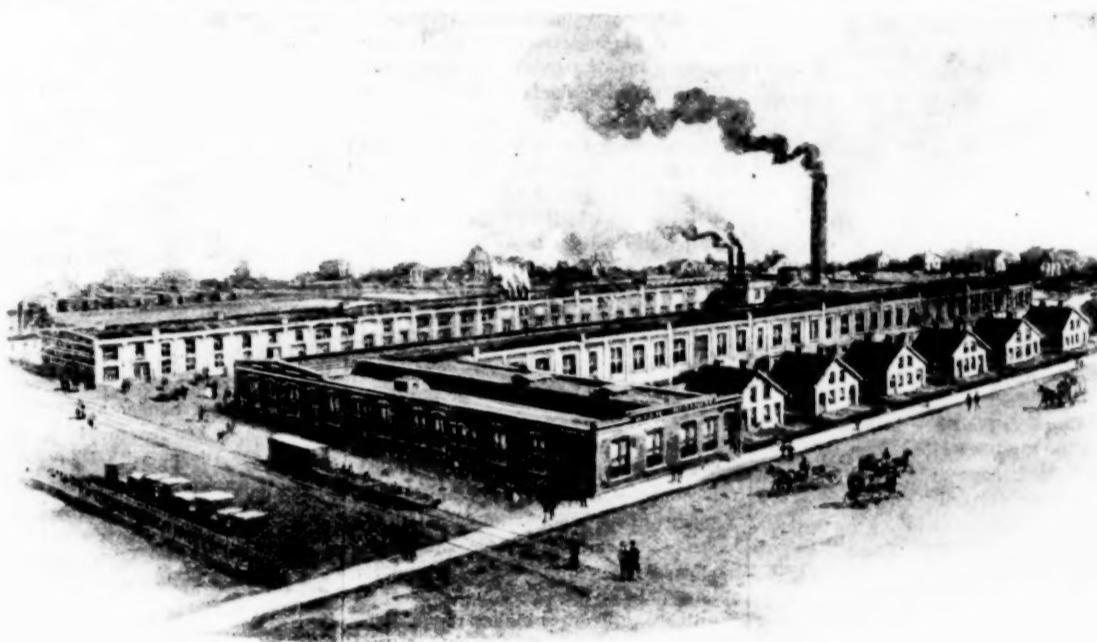
The value of semi-bronze packing has been fully proved by actual practice in hard service. It has given entire satisfaction wherever put in, both as to its

have given little time to the structural business, and involving as it does an immense amount of detail, have deemed it preferable to lease the plant to a responsible corporation, rather than enter upon this branch of business themselves.

The plant is rapidly being put in order, and the managers expect to have it in operation within thirty days. In the meantime, the fitting shop is being operated with material supplied from other works of the Illinois Steel Co. and purchased in the open market.

The Construction Company has secured as president the services of Mr. W. R. Stirling, who has long been connected with the Illinois Steel Co., and still retains his position of first vice-president with that concern.

It is naturally to be expected that the



DEAN BROS.' PUMP WORKS.

Works, Indianapolis, Ind. The accompanying cut presents a view of this plant. The shops are fitted with new and modern designed tools and machinery for manufacturing pumping machinery with accuracy and economy. The buildings have a width on the ground of sixty feet, by 1000 feet in length. The different departments are pattern shop, blacksmith shop, iron foundry, brass foundry and machine shop. Every part of the pumps are made by the company. The list of pumps comprise over 300 different styles and kinds. In addition to Dean's patent single pumps, a full line of duplex pumps are manufactured. More than fifty sizes and combinations of cylinders in this style of pump are made.

Semi-Bronze Packing.

This is the name given to a new high-grade packing for engines and pumps, manufactured by the New Jersey Car Spring & Rubber Co., Jersey City, N. J.

The core, which is the foundation of the packing, is a lubricator reservoir, and is

lasting qualities and the bright appearance of the piston-rods.

Most of the piston packings on the market are made without a full knowledge of the requirements. The semi-bronze is the result of years of experience of a practical and well-known engineer and pump-builder.

It is put up in twelve feet lengths, each length in a separate box, labeled, and sells at a popular price. Two brands are made, viz., "Gilt Edge" and "Combination."

Circulars and further information will be furnished our readers upon application to the New Jersey Car Spring & Rubber Co.

To Operate Structural Steel Works.

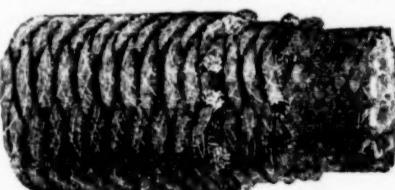
A new concern, the Universal Construction Co., has taken a lease of what is known as the "North Works" of the Illinois Steel Co., located in the city of Chicago.

The stock of the company is held by Eastern as well as local men. It is the purpose of the company to develop the manufacture of structural steel and special shapes, and to cater particularly to the bridge-building, railroad and contracting trades.

Mr. Fred Heron, who has an interest in the company, and is its general manager, besides being one of the directors, is well known in the iron and steel business, having been long associated with the Homestead Works, in Pittsburg, and for the last nine years with the Phoenix Iron Co., at Phoenixville, Pa.

The secretary of the company, Mr. Edward Haupt, has also been for some years with the Phoenix Iron Co.

During the last three years the Illinois Steel Co. has been so busily engaged in developing its other plants, which are five in all, that the officers of the company



SEMI-BRONZE PACKING.

composed of loosely-spun asbestos thoroughly saturated with high-grade cylinder oil, pressed into the desired shape and coated with pure foliated graphite. The covering consists of alternate strands of hemp and asbestos, loosely spun, each braided over with an open network of very fine brass wire.

All of the strands are very loose and

Illinois Steel Co. will feel a deep interest in the success of the Universal Construction Co., as it will be a large consumer of both raw material and finished products of the Illinois Steel Co.

Iron Markets.

Cincinnati, Ohio, April 18.

The anticipated lull is here, and producers and consumers now have an opportunity to review the past and attempt to look into the future. The Southern furnace companies that sold heavily feel they have no reason to be anxious at present. It is their hope that general business will revive before their order books are depleted. Other producers with contracts that do not fit their current output are pushing for business, but want full prices.

Foundrymen have mostly covered for their requirements during first half of the year, and are now awaiting developments in their trade. It would not be surprising if the quiet period extended for thirty days longer. During the week sales have been made at \$7.75 for No. 2 foundry, \$7.25 for No. 3 foundry, and \$6.75 for gray forge, cash Birmingham.

Northern furnaces did not experience such rush of orders as did those in the South, and there has been little change in prices. All seem to realize that iron will cost more to make after the new ore supply is purchased, but it has not been possible to stimulate buying to an extent that would warrant refusing to sell at current quotations. Lake Superior charcoal iron is firmly held at the advance, and some sales of round lots have been made.

We quote cash f. o. b. cars Cincinnati:

Southern coke No. 1 foundry.	\$10 75	\$11 25
Southern coke No. 2 foundry.	10 25	10 50
No. 1 soft.	10 25	10 50
Lake Superior coke No. 1.	12 00	13 00
Lake Superior coke No. 2.	11 50	12 00
Hanging Rock charcoal.	16 00	17 00
Tennessee charcoal No. 1.	13 00	14 00

Jackson Co. silvery No. 1.	14 00	14 50
Southern coke, gray forge.	9 25	9 50
Southern coke, mottled.	9 00	9 25
Standard Alabama car-wheel.	15 00	16 00
Tennessee car-wheel.	14 00	15 00
Lake Sup. car-wheel & malle'e.	14 50	15 00

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.	—@\$11 50
Southern coke No. 2.	—@ 11 00
Southern coke No. 3.	—@ 10 50
Southern gray forge.	—@ 10 00
Southern charcoal No. 1.	—@ 15 00
Ohio softener.	—@ 16 00
Lake Superior car-wheel.	—@ 15 00
Southern car-wheel.	—@ 16 25
Genuine Connellsville coke.	—@ 5 75
West Virginia coke.	—@ 5 00

Philadelphia, Pa., April 18.

The iron market seems to be quiet this week, and with the exception of some inquiries for basic pig iron, there is not much more new business in sight. Inside of sixty days, when the question is decided in regard to who is to be the next republican President, we believe a feeling of strong confidence will be established, and we think there will be a marked improvement all along the line.

We quote for cash f. o. b. Philadelphia:

No. 1 X standard Alabama.	—@\$12 75
No. 2 X standard Alabama.	—@ 12 25
No. 1 X standard Virginia.	—@ 12 50
No. 2 X standard Virginia.	—@ 12 25
No. 1 X lake ore iron.	—@ 15 00
No. 2 X lake ore iron.	—@ 14 50
Lake Superior charcoal.	15 65
Standard Georgia charcoal.	17 50

New York, N. Y., April 18.

The chapter of the Eastern iron market for the week is a short one. Quiet reigns. Buyers watch with interest the various moves in the game between the giants, but do not feel like taking a hand until the situation is more clearly developed. Spite of all discouragements and talk about low prices of castings, the melt keeps up better than is generally believed.

The general business situation, on which the iron markets are really built, shows some steady signs of improvement. Wall street sentiment, which has been changeable, but generally bearish since the first of the year, is steadily assuming a more hopeful tone. It would take but little now to start a broad bull campaign.

Prices of both Northern and Southern irons are firm.

We quote for cash f. o. b. docks:

No. 1 X Standard Southern.	—@\$12 25
No. 1 X choice Virginia, such as Shenandoah.	—@ 12 75
No. 2 X Alabama or Virginia.	—@ 11 50
No. 1 soft Ala. or Virginia.	—@ 11 50
No. 1 X lake ore coke iron.	—@ 14 50
No. 2 X lake ore coke iron.	—@ 14 00
Lake Superior charcoal.	15 85

We quote f. o. b. Chicago as follows:

Lake Superior coke No. 1 fdy.	—@\$12 50
Lake Superior coke No. 2 fdy.	—@ 12 00
Lake Sup. charcoal, Nos. 1 to 6.	13 50
Ohio Scotch No. 1.	15 00
Jackson Co., O., silvery No. 1.	14 50
Alabama silvery No. 1.	—@ 12 85
Southern coke No. 2.	—@ 11 85
Southern coke No. 3.	—@ 10 85
Southern coke No. 18.	—@ 10 60
Southern coke No. 28.	—@ 11 50
Mannie.	—@ 13 00

Buffalo, N. Y., April 18.

While the pig-iron market in this vicinity has been rather quiet, yet several good sized orders have been placed for Northern iron for reasonable early delivery. As a general thing, however, both consumers and producers of foundry iron are awaiting the action of the ore men. As soon as the price of non-Bessemer ore is set for the season and the cost of Northern iron settled, the local furnaces will feel more like selling for extended delivery.

Consumption of foundry iron seems to be holding its own, at least, if not increasing. The scarcity of cast scrap has caused some foundries to discontinue its use and others to substitute a close grade of pig iron, both of which increases the consumption of pig iron.

Lake Superior charcoal is quiet, sales being confined to small lots to piece out until navigation opens.

We quote for cash f. o. b. cars Buffalo:

No. 1 foundry strong coke iron.	—@\$13 50
Lake Superior ore.	—@ 13 00
No. 2 foundry strong coke iron.	—@ 13 00
Lake Superior ore.	—@ 13 00
Ohio strong softener No. 1.	—@ 13 00
Jackson county silvery No. 1.	15 25
Southern soft No. 1.	—@ 12 40
Southern soft No. 2.	—@ 11 90
Hanging Rock charcoal.	—@ 18 00
Lake Superior charcoal.	13 50

ROGERS, BROWN & CO.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Lumber Directory.

Readers of the Manufacturers' Record who may be in the market for lumber of any description are recommended to the directory of Southern lumber manufacturers and dealers which appears among the advertising pages.

LUMBER MARKET REVIEWS.**Baltimore.**

Office Manufacturers' Record.

Baltimore, Md., April 23.

There is still a dull and uninteresting market here for lumber, and the situation does not seem to show any improvement. Stocks of yellow pine are heavy and receipts show but little falling off. The consequence is that the market for certain grades of yellow pine is weak and lower, and sales are frequently made at a serious loss to the shipper. There is little or no demand, and buyers are only in the market when lots are offered extremely low. Planing mills and other woodworking concerns are not doing much, and operations are carried on in narrow limits. The demand for kilndried North Carolina pine is only moderate, and prices about steady. White pine is dull, and there is little doing in cypress. The hardwood market, although quiet, shows a better volume of business, and the demand from out-of-town buyers is somewhat improved, while the local business is light. With the advent of summer weather building operations have been resumed, which is creating a better demand for certain grades of material. The export trade is still moderate in volume, and shipments for the month are lighter than usual.

The following list represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

VIRGINIA AND NORTH CAROLINA PINE

5-4x10 No. 2, kiln dried.....	\$16 00	18 00
5-4x12 No. 2, kiln dried.....	17 50	18 50
4-4x10 No. 1, kiln dried.....	15 00	15 50
4-4x12 No. 1, kiln dried.....	16 00	16 50
4-4 nar. edge, No. 1, kiln dried.....	13 50	14 00
4-4 wide edge, No. 1, kiln dried.....	17 50	18 50
6-4x10 & 12, No. 1, kiln dried.....	23 00	24 00
4-4 No. 1 edge door, air dried.....	13 00	14 00
4-4 No. 2 edge door, air dried.....	10 00	11 00
4-4 No. 1 12-in. stock, air dried.....	14 00	15 00
4-4 No. 2 12-in. stock.....	12 00	13 00
4-4 edge box or rough wide.....	8 50	9 50
4-4 edge box do. (ord. widths).....	7 50	8 50
4-4 edge box do. (narrow).....	6 50	7 50
4-4 12-inch or rough wide.....	9 50	10 00
5/4 narrow edge.....	6 50	7 50
5/4 wide.....	7 50	8 50
5/4x10-inch.....	8 00	9 00
Small joists, 2 1/2-12, 14 and 16 long.....	8 50	9 00
Large joists, 3-16 long & up.....	9 00	10 00
Scantlings, 2x3-16 and up.....	8 00	9 00

WHITE PINE.

1st and 2d clear, 4-4, 5-4, 6-4 and 8-4.....	48 00	50 00
3d clear, 4-4, 5-4, 6-4 and 8-4.....	43 00	44 00
Good edge culls.....	14 00	15 00
Good stock.....	10 00	17 00

CYPRESS.

4-4x6, No. 1.....	20 00	21 00
4-4x6, No. 2.....	14 00	15 00
4-4x6, 16 feet, fencing.....	11 00	12 00
4-4x6, rough.....	9 00	10 00
4-4 rough edge.....	8 50	9 50
4-4 edge, No. 1.....	18 00	19 00
4-4 edge, No. 2.....	12 00	13 00
Gulf, 4-4, Nos. 1 and 2.....	28 50	30 50
Gulf, 6-4, Nos. 1 and 2.....	31 50	32 50

HARDWOODS—WALNUT.

5-8, Nos. 1 and 2.....	65 00	75 00
4-4, Nos. 1 and 2.....	80 00	90 00
5-4, 6-4 and 8-4.....	85 00	95 00
Newell stuff, clear of heart.....	85 00	100 00
Culls.....	20 00	30 00

OAK.

Cabinet, white and red, Southern, plain-sawed and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	30 00	34 00
Quartered white, Western, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....	53 00	55 00

POPLAR.

Nos. 1 and 2, 5-8.....	24 50	25 50
Nos. 1 and 2, 4-4.....	28 00	30 00
Nos. 1 and 2, 6 and 8-4.....	32 50	33 50

CULLS.

Culls.....	13 00	16 00
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SHINGLES.

Cypr., No. 1 h'rts, sawed, 6x20.....	7 25	7 75
No. 1 saps, sawed, 6x20.....	5 50	6 50
No. 1 hearts, shaved, 6x20.....	6 50	7 50
No. 1 saps, shaved, 6x20.....	5 25	5 50

LATHS.

White pine.....	2 70	2 75
Spruce.....	2 15	2 25
Cypress.....	2 15	2 25

Norfolk.

[From our own Correspondent.]

Norfolk, Va., April 20.

Very few changes have occurred in the general lumber market here, and the situation at the moment is considered more promising for future business. Mills are all running, and shipments about equal to the cut, the majority of which are to fill contracts made some time ago. Stocks of lumber are by no means excessive, considering the volume of business transacted during the past three months. A meeting was held recently of manufacturers of both dressed and rough stock, with the object of trying to formulate a suitable scheme for the betterment of trade. A motion to stop the mills for a stated length of time was not favorably received, and a plan to raise a fund to take care of all surplus stock was referred to a committee. Under the favorable weather prevailing active building operations have been commenced, and all mechanics are now fully employed. One of the largest buildings just completed is the Consumers' Brewery in Huntersville. It is said to be the largest brewery in the Southern country, and the enterprise is controlled entirely by local capital. Last week the contract for building the Kirn Hall in Brambleton avenue was awarded to R. E. Baylor. The building will be 50x100 feet, and will cost about \$16,000. Mr. E. T. Thomas is about to erect a saw mill in Brambleton ward, and the Atlantic Saw Mill Co., a similar structure in the sixth ward, their petitions to the city council having been referred to the local boards of those wards. The various woodworking factories are all now in full blast, and have about as much business as they can handle. There is a good offering of sail tonnage, and freights remain about the same. Among the charters in New York last week the following are reported: A schooner, 379 tons, from Norfolk to New York at \$2,221, less one-fifth if dressed; a schooner, 244 tons, from Norfolk to New York at \$2,20, less one-fifth if dressed; a brig, 421 tons, from Norfolk to Demerara at \$9,50, and a schooner, 234 tons, from Norfolk to New Bedford at \$2,50, free wharfage.

Nellie Coleman cleared for Port Antonio

with 90,000 feet of lumber, and the schooner Lillie for Antigua, W. I., with 300,000 feet. The total shipments of lumber to domestic ports since September 1, 1895, amount to 43,786,040 feet, and to foreign ports 1,620,685 feet, making a total of 45,406,725 feet, against 44,702,461 feet in 1894-95. Lumber freights are firm, with rates to New York and sound ports at \$4.62 1/2 to \$5, and proportionately for ties. Among the charters reported in New York during the past week were a schooner, 613 tons, from Charleston to New York with switch ties on private terms, and a schooner, 455 tons, from Charleston to Philadelphia with lumber on private terms.

Savannah.

[From our own Correspondent.]

Savannah, Ga., April 20.

Trade in all departments of the lumber industry continues to show considerable volume, and the demand is quite pronounced. There is a better foreign inquiry for lumber and its products, and within a few months this port will have completed a channel of twenty-six feet in depth, and in width 250 feet from the city to the ocean. These improvements will go far in cultivating a more extended trade with Europe and markets yet to be opened. The lumber trade at Darien, Brunswick and other ports is at present showing considerable activity, and mills are all fully employed, with orders sufficient to keep them running for some time to come. As to prices, there is no material change to note, except that present values are a shade firmer than usual. Manufacturers regard the situation as more satisfactory than for some time past, and under the present demand for yellow pine and cypress lumber, values are likely to show a higher range. The local market closes steady at the following figures: Ordinary sizes, \$11 to \$12; difficult sizes, \$13 to \$18; flooring boards, \$15 to \$22; shipstuffs, \$16.50 to \$20, and sawn ties, \$10. There is a good demand for shingles, and prices are steady, with stocks about sufficient for present necessities. The cross-tie industry is in fair shape, and the stave trade is developing a fair share of activity. Among the clearances during the past week the following vessels are reported: Schooner Flora Rogers with 329,577 feet of pitch-pine lumber, and the schooner Fannie L. Childs with 310,692 feet, both for Boston; schooner Chauncey E. Burk with 618,541 feet of pitch-pine lumber by E. B. Hunting & Co. and 94,433 feet by Dixon, Mitchell & Wells, and schooner Douglas Gregory with 487,521 feet, both for Philadelphia. Boston steamers took out 174,563 feet of pitch-pine lumber; New York steamers 360,900 feet and 200,000 shingles; Philadelphia steamers 105,034 feet of pitch-pine lumber and thirty-two cedar logs, and Baltimore boats took 63,675 feet of lumber. The Russian bark Pehr Brahe cleared last week with 82,327 feet of cypress lumber, 55,368 feet of ash lumber, 162,222 feet of pitch-pine timber and 70,608 feet of pitch-pine lumber. The freight market is steady, with rates nominally steady. The rates from this and nearby Georgia ports are quoted at \$4.25 to \$5.50 for a range including Baltimore and Portland, Maine; railroad ties, basis forty-four feet, 16 cents. To the West Indies and Windward rates are nominal. Steamers to New York and Philadelphia are quoted \$7. to Boston \$8. and Baltimore \$8. The following charters were reported in New York last week: For New York, schooner Mary Jenness with 311,000 feet of lumber; schooner Florence Randall with 542,196 feet; schooner Thomas A. Ward with 650,000 feet, and schooner Ahmeda Willey with 370,000 feet. The following vessels cleared during the past week: For New York last week: A schooner, 611 tons, from Savannah to New York with lumber at \$1500 loaded and discharged; a schooner, 215 tons, from Savannah to Atlantic City on private terms, and a schooner, 440 tons, from

Savannah to Atlantic City at \$5.50; a schooner, 565 tons, from Brunswick to Wilmington, Del., at 12 cents for eight-foot oak and 19 cents for 32-foot pine.

Pensacola.

[From our own Correspondent.]

Pensacola, Fla., April 20.

The strike among the lumber-loaders of this port has seriously interfered with and restricted operations in the general market. The strike was settled on Saturday, and over 1000 laborers are at work today. The resumption of work in the bay will likely give a firmer tone to the market, although during the strike the tone of values was only slightly affected. A few sales were made last week of Ferry Pass timber at 11 cents, and the same figure is being offered today. The British steamer Tampican, which arrived here on Friday last, is the largest merchant vessel that ever entered the port, being 3126 tons and 447 feet in length. Fifteen large steamships are in the harbor taking on cargoes, also ten full-rigged ships, twenty-seven barks, one brig and three schooners, besides numerous coastwise craft. Besides those now in port, sixteen steamships, three ships, thirty-two barks and two schooners are en route here. The entire labor troubles being now settled, it is expected that business during the next three months will be quite active. The steamer William Cliff was cleared last week by the Gulf Transit Co. for Liverpool with 425,000 feet of lumber and 105 hickory logs among her cargo; bark Gessner cleared for Dieppe with 5660 cubic feet of sawn timber and 428,000 superficial feet of lumber, by Hyer Bros.; the City of Worcester was also cleared by Hyer Bros. for Grimsby with 107,338 cubic feet of sawn timber and 334,000 feet of lumber. Freights are steady at 90/ to 92/6 for large and 95/ to 100/ for small vessels to United Kingdom and Continent; for River Plate, \$12 to \$12.50, \$2 form; for Rio Janeiro, \$13.25 to \$13.50 net. The charters reported in New York last week were as follows: A Norwegian bark, 780 tons, from Pensacola with lumber to Buenos Ayres, \$12.75 net, option of Rosario, \$13.75; A Norwegian bark, 1030 tons, with lumber from Pensacola to Buenos Ayres, \$14.25, \$2 form, and a British seamer, 2534 tons, from Pensacola to Greenock with sawn timber at 95/. May.

Mobile.

[From our own Correspondent.]

Mobile, Ala., April 20.

The lumber and timber industry at this port still shows a marked degree of activity, and the business of the current month will show considerable expansion in volume. The movement in timber has been unusually active during the month, and last week shipments were quite large. Sawn timber is still quoted at 11 to 11 1/2 cents per cubic foot, and contracts are generally made on that basis. Cypress is in fair demand at 5 to 8 cents per cubic foot. Hewn timber, when placed upon the market, will bring 12 cents on basis of 100 cubic feet, average B1 good. Hewn oak is quoted 15 to 18 cents per cubic foot. There is a good demand for lumber, and the market is very steady, with stocks fully ample for all requirements. The local shingle trade is quiet, but mills are generally looking forward to a good trade during the summer. Some of the mills are running on full time to fill up broken stocks. There is a good supply of timber at very low prices. Among the late deals in cypress-timber lands was one closed on Saturday, involving about \$50,000, which will result in placing on this market some 25,000,000 feet of board measure cypress. The lands purchased lie between the Mobile & Bir-

mingham Railroad and Mobile river, and were sold to McCuen & Pray, of New Orleans, by George Fearn & Son, of this city. They will begin to operate on the land about the first of June. There are also some 20,000,000 feet of pine on the lands, which will also be developed. Among the clearances from this port during the past week the following vessels are reported: Ship Vanloo for Fowey-on-the-River, England, with 29,218 cubic feet of hewn timber, 20,165 cubic feet of sawn timber and 571,612 superficial feet of lumber; bark Arabia for Greenock, Scotland, with 8182 cubic feet of hewn timber, 44,719 cubic feet of sawn timber and 44,654 feet of lumber; schooner Ligo for Port Talbot, England, with 19,424 cubic feet of sawn timber; bark Baltzer for Cork, Ireland, with 25,224 cubic feet of sawn timber and 17,130 feet of lumber. The schooner Villa Y. cleared for Tiacotlapan, Mexico, with 243,963 feet of lumber, and brig Estella for Colon, U. S. C., with 287,000 feet. The freight market is steady, with a fair offering of desirable tonnage and rates unchanged. Among the charters reported in New York last week were the following: A Norwegian bark, 964 tons, from Mobile to Buenos Ayres with lumber at \$13 net; a bark, 689 tons, from Mobile to Buenos Ayres at \$12.75, Rosario \$13.75, and a British bark, 714 tons, from Pascagoula to Buenos Ayres, \$12.75, Rosario \$13.75.

Beaumont.

(From our own Correspondent.)

Beaumont, Texas, April 18.

Trade in this section this week has been exceptionally dull, not only in Beaumont, but also at Lake Charles and Orange. This is plainly attributable to the fact that all the lumber dealers of the State have been attending the annual convention of the Lumbermen's Association at Austin, Texas, on Tuesday, Wednesday and Thursday of this week, thus preventing the placing of orders through mail to the mills, though it is surmised that when all the millmen shall have returned from Austin several nice orders will develop as a result of their visit. While orders for yard stock and dressed material from the dealers have been scarce this week, it is encouraging to note that the demand for timbers has improved quite appreciably, and although this revival has not been as early coming as was at first anticipated, still its coming at all justifies the prediction of the lumbermen that this class of stock would soon be in good demand. While the orders which have come to hand are not for large assortments, still they call for quite a good lot of lumber in the aggregate, and as they are from different sections of the country, it can be taken as fair evidence that before long timber specifications, which up to the present have been somewhat scarce, will be comparatively plentiful. The shingle market is about normal, it also having felt the effect of convention week. Prices obtained are the same as have been prevalent for some time. Matters in the sash, door and blind line, it is noticeable, are in a much better condition than, perhaps, any other branch of the lumber industry. C. W. George & Co., of this place, have all the orders they can well take care of, and at satisfactory prices. The Reliance Lumber Co., which is the only other concern here in this department, reports a like condition prevailing with it. This is, perhaps, caused by the dealers through the State, which some three or four weeks since were first enabled to send in orders for lumber, now being called on to furnish the shop work and kindred material for the same dwellings. The steamship Gyller will clear from Sabine Pass this week with ties and timbers for the Mexican, Cuernavaca & Pacific Railroad, at

Vera Cruz. This vessel was loaded by the Reliance Lumber Co. and the Consolidated Export Lumber Co., both of this place, jointly. The John H. Buttrick will also clear from Sabine Pass with some 500,000 feet of general yard stock and dressed material for the distributing yard of the Consolidated Export Lumber Co. at Tampico. Beaumont was well represented at the Austin meeting by Messrs. G. H. Mallam, Mark Weiss and L. B. Pipkin, and Orange contributed Messrs. G. Bedell Moore, Eugene Bancroft and Arthur F. Sharpe, while Mr. J. N. Johnstone represented the Warren Land & Lumber Co., of the East Texas road. The Long Manufacturing Co.'s latest addition is a planing mill, which has just been completed and is now in running order. The company has heretofore been manufacturing only rough lumber and shingles. For the past six weeks Prest. John L. Keith, of this company, has been out almost constantly in the swamps, giving his undivided attention to the gathering in of the immense amount of cypress timber which the concern has recently purchased. The mill is running on full time and is in a flourishing condition.

Lumber Notes.

The schooner Aaron Reppard cleared from Fernandina last week for Philadelphia with 110,000 feet of lumber and 197 piles.

The Loomis & Hart Manufacturing Co., of Chattanooga, Tenn., has ordered a new drying kiln for its furniture factory. The new kiln will be in operation within thirty days, and will cost \$1500.

A saw mill owned and operated by Ezekiel Fleming, of Farmington, Del., and located in Howard county, Md., was burned on the 16th inst. The loss, which is not covered by insurance, will amount to \$2000.

The large saw mill of the Center Lumber Co., of Clay City, Ky., resumed work on the 14th inst. It has not been operated since last September. Its booms are now filled to their capacity, and the company expects to run eight months.

Large additions are being made to the steam plant of the Richmond Cedar Works at Richmond, Va. A boiler-house is being built to accommodate two fifteen horse-power boilers, which will also necessitate the construction of a new smokestack.

The petition of the Atlantic Saw Mill Co., of Norfolk, to erect a saw mill, and of Mr. E. T. Thomas to erect a similar structure in Brambleton, introduced at a meeting of the city council of Norfolk last week, were both referred to the local boards of those wards.

The receipts of lumber at the port of New Orleans for the week ending the 16th inst. were 1,435,500 feet, and for the season 64,244,128 feet, against 50,534,890 feet for the corresponding period last year. Receipts of shingles were 189,000, and for the season 7,425,000.

The first consignment of the big shipment of logs at Chattanooga for the Heyser and the H. A. Johnson Lumber Companies arrived last week. Both companies have resumed operations. About 6,000,000 feet of logs have been received, enough to keep them running for several months.

The town council of St. Martinsville, La., met on the 14th inst. and granted a permit to Hall & Burdin to construct a railroad switch leading to their saw mill. The company under these conditions will have facilities for shipping to outside points and be enabled to run at full capacity the year round.

Among the shipments of lumber and

timber from Brunswick, Ga., during the past week the following vessels are reported: American schooner Luther M. Reynolds for Albany, N. Y., with a cargo of 8900 crossties. The American schooner Dora Matthews cleared for New York with 633,000 feet of lumber.

The work on the Milburn-Bass Wagon Factory's plant at Chattanooga, Tenn., is progressing rapidly. The machinery, which has been purchased in Cincinnati and Hamilton, Ohio, is arriving, and being put in place as fast as possible. It is probable the company will be ready to commence operations some time in June.

The Sterling Lumber Co. was chartered last week at Charleston, W. Va., with a capital of \$66,000. The privilege of increasing the capital stock to \$100,000 in all is reserved. Shares are \$50 each, and are held by E. A. Smith and S. N. Gramont, of Providence; R. L.; C. H. Eaton, M. Jackson and J. F. Brown, of Charleston, W. Va.

The large saw mill recently erected at Lacon, Ala., by the Schaefer-Burkard Lumber Co. has a cutting capacity of 50,000 feet a day. It is intended by the management of the new mill to manufacture high-grade hardwood lumber almost exclusively. White oak, red oak, hickory, beech and poplar will be the principal products for the present.

A tract of land has been purchased at Cumberland City, Tenn., which will be divided into small sections by a syndicate that will endeavor to develop the resources of this section, especially the timber and lumber industry. A stave, heading and barrel factory has been secured. This land is situated on the Louisville & Nashville Railway, and also on the Cumberland river.

The following vessels cleared from Jacksonville, Fla., last week: Schooner John W. Hall for Philadelphia with a cargo of 208,127 feet of cypress lumber and 190,000 cypress shingles; the schooner Collins W. Walton cleared for New York with a cargo of 330,000 feet of yellow-pine lumber; the Clyde steamer Iroquois cleared with 250,000 feet of lumber, 2500 bundles of shingles and 4000 crossties, with other cargo.

On Monday last the machinery of the now practically completed plant of the Woodward Lumber Co., of Atlanta, was set in motion. It will be remembered that the plant of this company was destroyed by fire in May last. The buildings of the new plant are of brick, and the yard of the company can accommodate 8,000,000 feet of lumber. The company employs between 250 and 300 men.

The retail lumber dealers in attendance on the Lumbermen's Association of Texas met at Austin on the 15th inst. and organized a retail dealers' association by electing the following temporary officers: S. S. Walker, of Groves, chairman; W. H. Lang, of Corsicana, secretary. It was decided that a meeting be held at Dallas on May 6 to perfect a permanent organization, draft by-laws and frame a constitution to govern the same.

Mr. L. White, of Indiana, has concluded to build his saw mills at Rutherford, N. C., and has purchased a tract of land at the terminus of the Carolina Central, on which he will erect his buildings. His plant will be a large one, and will be in operation in about thirty days. He has contracted with the Liddell Company, of Charlotte, for one of its largest and latest improved plants, with a sixty horse-power engine. Mr. White will saw and ship white oak, walnut and poplar lumber only.

It is stated that a deal in cypress lands was closed at Mobile, Ala., on the 18th inst. involving about \$50,000. The lands next April.

purchased lie between the Mobile & Birmingham Railroad and the Mobile river, and were sold to McCuen & Pray, of New Orleans, by George Fearn & Son, of Mobile. Development will begin on the 1st of June, and Cameron & Sons, of Mobile, have contracted to take the entire output of cypress timber from these lands. There are also some 20,000,000 feet of pine on the lands, which will also be developed.

The Alabama Mutual Lumber Co., Limited, the Mutual Lumber Co., of Mississippi, and the Arkansas & Missouri Lumber Co., composed of the leading lumber manufacturers of the States named, held a joint meeting in Birmingham, Ala., on the 14th inst. for the purpose of considering price-list matters and also to adjust differences which have arisen among disaffected members of the Alabama association. The meeting was a very harmonious one, and the consensus of opinion was that the association be maintained at all hazards. The price-list was reduced on an average of \$1 per 1000 feet on the various grades. The association adjourned to meet at Birmingham on May 12.

The tenth annual meeting of the Texas State Lumbermen's Association was held on the 14th inst. at Austin, Texas. The first day's session opened at 12:30 with President Gribble in the chair, and after an address by Mayor Hancock the convention adjourned until 2:30 P. M. At the afternoon session Secretary Drake submitted his annual report, which was well received, abounding in statistics and valuable information relating to the association and the lumber industry generally. The report was adopted unanimously. Other reports of committees were submitted, viz., committee on railroads, arbitration committee and committee on lumber review, all of which were adopted. A communication from the following companies and firms was received: Texas Tram & Lumber Co., Village Mills, Lutcher & Moore, Southern Pine Co., J. A. Bentley & Co., Crowell & Spencer, Allen & Co., Beaumont Lumber Co., Nona Mills Co., Reliance Lumber Co., Bancroft Lumber Co., M. T. Jones Lumber Co., Orange Lumber Co., Lock, Moore & Co., Drew & Powell, Emporia Lumber Co. and J. A. Vonnetten. The communication was as follows: "It having come to our knowledge that certain members of the Lumbermen's Association of Texas are dissatisfied with manufacturers holding membership therein, and believing that possibly it would be to the interest of both manufacturer and dealer to maintain separate and distinctive organizations, we hereby tender our resignations of membership in your association." After some sharp discussion it was finally decided, by a vote of twenty-two to one, to refuse to accept the resignations of the wholesalers. At the second day's session a report from the committee on legislation was received. The special committee to which was referred the matter of establishing a freight bureau reported that it had come to no definite understanding in the matter, and recommended that it be referred to the permanent railroad committee, which was done. At the third day's session the consideration of resolutions was the first business of the day, and in which manufacturers were urged to pursue a course to maintain the market. The special committee reported favorably on the resolutions, and the report was adopted. At the election of officers for the ensuing year the following were elected: President, Sam Swinford, of Houston; vice-president, Cecil A. Lyon, Sherman; secretary and treasurer, Carl F. Drake, Austin. The association adjourned to meet in Houston next April.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Talk of a 40,000-Spindle Mill at Augusta.

Current reports at Augusta, Ga., are to the effect that the Enterprise Manufacturing Co. intends to erect an additional mill, to be equipped with 40,000 spindles. It is stated that the company has been purchasing from time to time the lots of land adjacent to its present plant, and this move is pointed out as a confirmation of the rumor. The present mill has a capacity of 33,000 spindles. Mr. J. P. Verdery is president.

A Knitting Mill for Bamberg.

The movement inaugurated during the week at Bamberg, S. C., for the erection of a knitting plant has been successful, company having been formed and charter applied for. The capital stock is \$10,000, with privilege of increasing to \$25,000, and the incorporators are Messrs. H. C. Folk, Thomas Black, W. D. Rhoad, C. R. Bradham, H. K. Eaves and J. F. Folk. Arrangements will be made for an early commencement of work on the proposed mill.

Eden Park Mills to Rebuild with 10,000 Spindles.

Preparations have already commenced at Douglasville, Ga., for the rebuilding of the Eden Park Cotton Mills that were recently destroyed by fire at a loss of over \$30,000. Mr. Joe S. James, secretary of the company, has stated that a plant of 6000 spindles will be equipped, and 10,000 spindles in the event that certain concessions in the way of railway freights are granted by the Southern Railway. It has been decided that the product will be mostly colored and white hosiery yarns.

Messrs. Andrew J. Bryan & Co., of Atlanta, Ga., have been engaged to prepare the plans for the new plant, and they are now at work on same. Will complete them in about two weeks.

Textile Notes.

J. C. Dayton, W. C. Hale and others will open a bank at West Point, Ga., with \$25,000 capital.

The Salisbury Cotton Mills, of Salisbury, N. C., has declared the usual quarterly dividend of 2 per cent., payable on demand.

Mr. Francis D. Winston, of Windsor, N. C., contemplates the establishment of a knitting mill, and is now making investigations as to machinery and other equipment.

A company is being organized at Lenoir City, Tenn., for the purpose of establishing a mill for the manufacture of cotton yarn. Mr. J. W. Grizzell is to be secretary of the company.

The Columbia Cotton Mills Co., of Columbia, Tenn., has declared a dividend of 6 per cent., the directors having so decided at the meeting held last week. The old officers and directors were re-elected. Mr. J. P. Street is president.

A proposition has been made for the erection of a cotton mill of 30,000 spindles and 1000 looms at Opelika, Ala. Hon. R. B. Barnes is interested in the matter, and will use every endeavor to have the terms of the proposition met.

The regular annual meeting of the New England Cotton Manufacturers' Association will be held in Boston on April 29 and 30. Among other special papers will be one by Mr. D. A. Tompkins, of Charlotte, N. C., on "The Future of Cotton Manufacturing in the South."

Messrs. F. J. Murdoch, E. T. Garsted, W. S. Blackmer and N. B. McCanless, together with other parties interested in cotton manufacturing, have formed the Spencer Manufacturing Co. to erect a mill for utilizing the waste of cotton mills at Salisbury, N. C.

The affairs of the Portsmouth Cotton Manufacturing Co., of Portsmouth, Va., have been settled, and the property is now out of the receivers' charge. The Portsmouth Knitting Mill Co. is now in control of the property, and will arrange to equip and operate a plant at once.

The Bamberg Cotton Mills, of Bamberg, S. C., has succeeded in securing the additional capital necessary to double the capacity of its mill, as previously contemplated. Mr. W. G. Smith, president, is now making arrangements for the commencement of work on the plant in the near future.

The additional machinery to be put in by the Stanley Creek Cotton Mills, of Stanley Creek, N. C., noted last week, will consist of five revolving flat cards, two railway heads, two drawing-frames, with six deliveries each, and one slubber and two intermediate speeders; also ten spinning-frames of 208 spindles each, etc. Order for all the equipment has been placed.

The mill of the new Aiken Manufacturing Co., located at Bath, S. C., eight miles from Augusta, Ga., is now about completed, the building being finished and equipped with the machinery. The latter consists of 15,000 spindles and 412 looms and the complementary machinery required in the manufacture of a fine grade of brown goods. The plant will be operated by water-power, and in a few weeks will commence operations. Mr. F. B. Henderson, of Aiken, is president of the company. General offices at Augusta.

The introduction of electric lights in Southern cotton mills continues to extend. Recently J. E. Duval, electrical engineer and contractor, Charlotte, N. C., completed the following installations: 200-light plant, Walhalla (S. C.) Cotton Mills; 150-light plants, Randleman (N. C.) Manufacturing Co., Hiawatha Cotton Mills, Gibsonville, N. C., and Chicora Mills, Norfolk, Va., and 250-light plant, Lincoln Mills, Lincolnton, N. C. He has closed contracts to install 300-light plants at the Avon Mills, Gastonia, N. C., and D. W. Alderman & Sons Co., Aleolu, S. C.

The Monbo Manufacturing Co., of Monbo, N. C., has awarded contract to C. H. Lester, of Monbo, and Wm. J. Lazebny, of Statesville, for the erection of a standard mill building, to be equipped with every modern improvement. This building is to take the place of the present one, and its size will be 75x185 feet. The machinery of this company is now all quite new, but it expects to invest about \$14,000 in the new building, improvement of power plant and fire protection. Two 51-inch turbine wheels weighing each over 12,000 pounds have been ordered, and later on it is expected that 2080 spindles will be added.

The buildings for the new Dixie Cotton Mills at La Grange, Ga., are about completed, and the machinery has commenced to arrive and is now being placed in position. The principal machines to be installed will be 102 spinning-frames, 102 carding machines, six pairs of mules, with 1408 spindles to each mule (8448 spindles), 354 looms, twelve fly-frames, four slubbers, sixteen railway heads, six intermediate frames, three sets of pickers, four warpers, five spoolers, one double slasher, etc. The engine for the plant is now being built by R. D. Cole & Co., of Newnan, Ga. Mr. W. E. Robinson is superintendent of the mill.

The regular annual meeting of the New England Cotton Manufacturers' Association will be held in Boston on April 29 and 30. Among other special papers will be one by Mr. D. A. Tompkins, of Charlotte, N. C., on "The Future of Cotton Manufacturing in the South."

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

Criticising the American Cotton Oil Co.

Following some recent resignations from the board of directors of the American Cotton Oil Co., the New York World presents a rather caustic criticism of the company and its operations, and whether its statements be correct or incorrect, they are of interest to cotton-oil people. The World says:

"Those who are on the inside of Wall-street affairs are close watchers of late of the course of the American Cotton Oil Co.

"For several years Edward D. Adams, who is accounted one of the brightest financiers of the street, was at the head of the finance committee of the trust, and was its managing director. He has recently left that position, alleging pressure of outside business.

"T. R. Chaney has for a long time past been the president of the trust. He has had twenty-five years' experience in the handling of cottonseed products and is a thorough expert. His resignation came a few days ago and was discussed as little as possible by those on the inside. It was given out that his health demanded a change, though rumor has it that he may become interested in anti-trust concerns.

"Another change which is considered very significant in the trade was the dropping of Edward Flash, who has been in charge of the New York sales office of the trust at a salary of \$12,000.

"Reports differ as to his leaving. Some in a position to know speak of his dismissal, others of his resignation, while others put it as a permitted resignation. In any event, he has organized the William & Flash Co., with offices in Pearl street, to trade in cotton-oil products.

"Oscar Flash, a brother of Edward, and formerly a \$1200 clerk in the trust, has been made sales agent at \$1500 per year. In this and various other ways the cutting down of expenses has been drastic to the extreme, and one official declared the changes would save as much as \$150,000 per year, and this, too, without endangering the working of the trust.

"Some of the shrewdest friends of the trust, men who are in the cotton trade and know the South thoroughly, have of late been advising friends to get out of the trust securities and have been following their own advice. Lehman Bros. and John H. Inman are reported to be in this category.

"It is not charged that any irregularities have been discovered in the management of the trust or in its affairs. In fact, among the whole band of speculative trusts which are listed on the Stock Exchange for the temptation of venturesome speculators, the Cotton Oil Trust has been noteworthy for the completeness and promptness of its reports. They told with seeming frankness all that the trust was doing, but they did not tell of the trade outside of the trust, and it is from this direction that the danger which now threatens to overwhelm the big concern has come.

"Its officials failed to follow the examples of such thorough-going trusts as Standard Oil or American Sugar, which made monopolies of the trade in their respective lines. At its start as a new company, in 1889, after the breaking up with its attendant scandals of the old Cotton Oil Trust, the present company had a pretty fair monopoly of the business, but it failed to crush out opposition. It was sure to create a hearty laugh in the offices of the trust to come with information

that a new mill or refinery had been opened somewhere. These outside mills started here and there in modest fashion. Instead of the old-style machinery with which the trust mills are equipped, these new concerns had modern milling facilities and were able to turn out better product and at cheaper rates.

"The trust has now about seventy crude mills in the South, while the independent outside plants in the same line number upwards of 200. They are in Texas, the Mississippi valley and in the Southern Atlantic States.

"A year or more ago, under the reported short cotton crop, the trust purchased seed heavily, and its buying agent managed to run the price of the raw material up to comparatively high figures. The price has since fallen, and now the trust cannot mill the seed at a profit, and to hold it means a greater loss. Three years ago standard grades of cottonseed oil sold at sixty cents and sixty-five cents per gallon. Last fall it was quoted at twenty-nine cents and thirty cents, and is now quoted at twenty-five and one-half cents free on board at New York.

"Another heavy blow at the trust, and which is affecting the entire cottonseed industry, is the big corn crop. The farmers do not ship corn, but turn it into pork. This means cheap lard. In a high or fairly well priced lard market the Cotton Oil Trust is comparatively independent of pure lard in the sale of its main product—compound lard or cottolene cooking material.

"At the December meeting of the stockholders a resolution was quietly put through, declaring that it was the opinion of the stockholders that the rule requiring the allotment of money to the sinking fund was not mandatory on the directors.

"Since then there have been no retirements of bonds, and while some of the directors actually declare that no such resolution was passed, it is on the minutes, and it is generally understood that at the meeting next month to arrange for the June payment this right will be exercised by the directors. It is also under discussion whether the need of working capital will not compel the passing of the dividend on the preferred stock or a temporary sealing down of the same.

"The trust was formed in September, 1884, by from seventy to eighty independent concerns, whose managers met in Arkansas. It was patterned after the Standard Oil Trust, and many of the coal-oil magnates were in it. The trust became most domineering in its treatment of the Southern cotton-planter, and cut down the price of seed in a most arbitrary fashion and to ridiculously low figures. The industry was a lucrative one, and the million tons or more of seed crushed yearly produced about \$40,000,000 worth of various articles."

FROM THE COMPANY'S STANDPOINT.

In reply to a report that the American Cotton Oil Co. was in bad condition; that it would probably pass its dividends, and that the retirement of Edward D. Adams and former President Thomas R. Chaney indicated serious dissensions in the management, President George Austin Morrison stated a few days ago that the business of the company suffered in common with general business recently, but that the company has earned a full dividend on the preferred stock, and has the cash to pay it. He added that the outlook for the trade is improving.

The Market for Cottonseed Products.

New York, April 21.
The situation in cotton oil has not improved; a weaker feeling being in evidence, owing to the unprecedented course which lard persistently pursues. With

regard to the latter product, no parallel may be cited during the most depressed seasons which can be recalled. During the week 4.90 cents was quoted at Chicago, May options, and July, 5.07½ cents bid. A fair volume of exports obtained for the week, but this could have been materially increased, or, sales for export, for future delivery, at prices more in conformity with the views of shippers. Buyers are in the market at 25½ cents for large lots, with sellers at 25½ cents. German and English demands are unusually limited, especially the former, adverse legislation being primarily responsible therefor, while French needs are manifest only when a suitable concession is offered. The West India Islands, Central and South America, together with Austria, have been the mainstay of the export market recently. It is interesting to observe that the drug trade evinces considerable concern in refined cotton oil, in Europe as well as in the United States. With tallow on the downward course, and oleo-stearine similarly situated, cotton oil is practically shut out from the soap kettle. Crude oil of choice quality is in good demand at full quotations. Prime white oil is dull and unchanged, while butter oil sells slowly at previous quotations. Off-grade yellow, like choice crude, is in limited supply, and quotably on a parity with prime. Again, referring to values, we would point out that a considerable period yet intervenes between now and the next crushing season for prices to harden, notwithstanding the present dull conditions. The verification of Armour's prediction of \$1 wheat would be a progressive step in the advancement of values all along the line of vegetable and animal products. The fact remains that current prices are far from being satisfactory, and radical changes are essential before betterment may be secured. The hot weather suddenly arriving has also brought about sales, with regard to recent arrivals on dock, to buyers' advantage; receipts approximating 6000 barrels. The closing quotations are as follows: Prime crude, 21½ to 22 cents; loose at the mills f. o. b., 16½ to 19 cents; off-grade crude here, 16½ to 19 cents; prime summer yellow, 25½ to 25½ cents; off-grade yellow, 25½ to 25½ cents; butter oil, 27 to 28 cents, and white oil, 28½ to 29 cents; foots, or soap stock, is quoted at 5 to 1 cent per pound. With regard to the American Cotton Oil Co.'s system and representatives in New York, retrenchment in running expenses is being vigorously carried out. Edward D. Adams, managing director of the finance committee, has resigned. The situation in hand has proven a very serious matter to stockholders and the corporation generally.

Cake and Meal.—Prices and general conditions of the market are unchanged. With regard to the demand abroad, notwithstanding the unusually low prices which rule, competitive articles, such as low-priced maize, slacken interest in oil-cakes, and sales are difficult to accomplish. A peculiar condition of current times, which, however, affords but questionable comfort, is the fact that all grades of cotton cake realize higher prices than the best American brands of linseed cake—the point being that American cotton cake has now assuredly taken the lead in mill-feeding stuff, the advantage deriving from same, however, owing to the dull demand in all products, being deferred to future seasons.

Cottonseed-Oil Notes.

A company has been formed in Floresville, Texas, to erect a cottonseed-oil mill, and work on the same has already commenced.

A number of wealthy citizens of

Shreveport, La., and several capitalists from abroad are organizing a company for the erection of another cotton compress and oil mill, to be run jointly.

The exports of cottonseed products from the port of Galveston, Texas, during the week ending the 18th inst. were as follows: 1087 sacks cottonseed cake, 66,834 sacks cottonseed meal and 250 barrels of cottonseed oil.

Work was commenced last week on the new oil mill of the Interstate Cotton Oil Co. at Augusta, Ga. The plant will consist of four buildings—the seedhouse, a wooden structure 150x51 feet; the hull-house, wooden, 100x50 feet; the oil mill proper, a brick structure 217x43 feet, and the boiler-room, 30x40 feet. The contract stipulates that the work must be completed by June 15, as the machinery is all ready, and the work of erecting it will be commenced immediately on the completion of the building.

The Texas mills report a very light sale for cottonseed oil, though a few sales have been made recently at seventeen cents. There is a very light supply of cake and meal in the State, the export demand having nearly absorbed the supply. The following quotations were posted last week by the cottonseed-product department of the Houston Cotton Exchange and Board of Trade: Choice crude oil for butter oil, strictly prime crude oil and prime oil, 17½ cents; prime butter oil, loose, 21 cents; prime summer yellow oil, 19½ cents; prime cottonseed meal and cake, \$13 to \$14.50 f. o. b. mill interior points; linters—A, Houston delivery and classification, 3 to 3½ cents; B, 2½ cents; soap stocks, foots from refined oil, .30 bid, .40 asked per 100 pounds; market quiet.

Receivers' prices for cottonseed products in the New Orleans market, as quoted by the daily papers, are reported as follows: Cottonseed, 89 per ton of 2000 pounds net to the mills, no commission of any kind to be added; cottonseed meal jobbing at depot, \$17.25 to \$17.50 per short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$18.75 to \$19 for current month; oilcake for export, \$18.75 to \$19 per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, strictly prime in barrels per gallon, 20 to 20½ cents; loose per gallon, 17 to 19, according to location of mill; refined cottonseed oil, prime in barrels per gallon at wholesale or for shipment, 24 to 25 cents; cottonseed hulls delivered per 100 pounds, according to location of mill, 20 cents; foots, 1 to 1½ cents; linters, according to style and staple and irrespective of color—A, 4 cents; B, 3½ to 3½ cents; C, 3 cents; ashes, none.

The receipts of lumber at the port of Wilmington, N. C., for the year ending March 31, 1896, were 35,888,031 feet, against 35,323,412 in 1894-95; shingles, 4,763,000, against 5,091,963 last year.

Mr. B. D. Heath, of Charlotte, N. C., has purchased the cotton mill of the Fishing Creek Manufacturing Co. at Richburg, S. C., for it is stated, about \$30,000. The plant contains about 5000 spindles.

The Petersburg (Va.) Chamber of Commerce at its annual meeting elected the following officers: President, Bartlett Roper; first vice-president, Simon Seward; second vice-president, Stith Bolling; secretary and treasurer, R. D. Gilliam.

If you want to sell Southern property or attract Northern and Western settlers, advertise in the *Southern States* magazine, published by the Manufacturers' Record Publishing Co., Baltimore, Md.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., April 23.

The local phosphate market is dull and featureless, with no prompt demand at the moment. Manufacturers, both local and out of town, are not adding to their stocks, and but few sales of any volume are reported during the past week. In South Carolina mining sections the work of development is being pursued with more vigor. The demand, both domestic and foreign, has improved, and prices are firm. Crude rock at the mines is quoted at \$3 for hot-air-dried, \$3.25 f. o. b. vessel in Ashley river, \$3.45 f. o. b. Charleston; ground rock in bulk, \$5.50 f. o. b. Charleston. In Florida the output is being curtailed, and miners are not disposed to operate under the present depression in values. The shipments, however, continue fair from the Florida ports, and the operations in pebble phosphate are larger. The only arrival in the local market during the past week was the schooner Susie Plummer from Ashepoo, S. C., with 1356 tons of phosphate rock. There are no charters reported in a local way. The market in New York for sail tonnage is quiet, with rates generally firm. There is a moderate inquiry for coastwise tonnage, and berth freights are not improved. The following phosphate charters are reported during the past week: Two British steamers, 1567 and 1570 tons, from a Southern port to the United Kingdom or Continent on private terms; a schooner, 213 tons, from Philadelphia to Norfolk at 80 cents; a schooner, 128 tons, from New York to Baltimore with fertilizer at \$1.10; a British steamer, 1363 tons, from a Southern port to the United Kingdom or Continent with phosphate on private terms; a bark, 563 tons, from Tampa to Wilmington, Del., with phosphate at \$1.90; a British steamer, 1248 tons, from Coosaw to the United Kingdom or Continent with phosphate on private terms, and a bark, 472 tons, from Charlotte Harbor to Mobile with phosphate at \$1, loaded, trimmed and discharged.

Fertilizer Ingredients.

There has been a moderate demand for the leading ammoniates during the past week, and in some lines the volume of business shows an improvement. From Southern sections there has been a fair inquiry, with some business reported. The market in the West is very steady, with stocks light and all the offerings freely taken at current figures. Sulphate of ammonia is steady. In New York nitrate of soda was a shade easier yesterday, but prices were not notably lower, the nominal price not falling below \$1.70 ex ship. About \$1.65 was the best bid.

The following table represents the prices current at this date:

Sulphate of ammonia, gas....	\$2 30@
Sulphate of ammonia, bone....	2 25@ 2 30
Nitrate of soda.....	1 80@ 1 85
Hoof meal.....	1 70@
Blood.....	1 80@
Azotine (beef).....	1 70@
Azotine (pork).....	1 75@
Tankage (concentrated).....	1 70@
Tankage (9 and 20).....	1 65@ 1 70 and 16
Tankage (7 and 30).....	17 00@ 17 50
Fish (dry).....	20 50@
Fish (eclid).....	12 00@

Phosphate and Fertilizer Notes.

The British steamer Hexham sailed on the 17th for Stettin via Newport News with 2170 tons of phosphate rock from the Franco-American Phosphate Co.

The British steamship Glenochil cleared from Savannah last week for Bremen and Hamburg with 2007 tons of phosphate among her cargo for the latter port.

The State fertilizer inspectors of North Carolina report that while there is a very great increase in the amount of cotton

fertilizers handled this season, there appears to be no increase in the sales of fertilizers for tobacco compared with last season.

The volume of business in the Tennessee phosphate-mining districts was lighter than usual for the month of March, owing to the inclemency of the weather and bad roads. The output for the month was 3800 tons, shipments 3570 tons, and stock on hand 4100 tons.

The British steamship Jessie arrived at Fernandina on the 14th from New York, and will load 4000 tons of phosphate. The steamship Royalist is due to arrive, and will load 4000 tons of phosphate. The schooner Caroline Firth cleared with 1300 tons of pebble phosphate, and the schooner Senator Sullivan cleared for Baltimore with 1050 tons of phosphate.

The shipments of phosphate rock from the port of Charleston, S. C., to domestic ports for the week ending the 17th inst. are reported as follows: Schooner Clara A. Phimney for New York with 600 tons; schooner Vanleer Black for Norfolk, Va., with 910 tons; schooners Rillie S. Derby with 608 tons and Tillie Vanderherchen with 605 tons, both for Richmond, Va.; schooner Isaac T. Campbell with 830 tons for Weymouth, Mass. The total exports to domestic ports since September 1, 1895, amount to 75,015 tons of crude and 7927 tons of ground phosphate rock, against 56,481 tons of crude and 1365 tons of ground for the corresponding period last year.

The following arrivals and departures of phosphate rock from Port Tampa during the past week were as follows: Arrived—British steamship Cheenston, from Havana, for phosphate rock. Sailed—On the 13th steamship Wydale for London via Newport News with 2380 tons of phosphate rock from the Anglo-Continental Guano Works; schooner Henry J. Smith for Philadelphia with 1534 tons of pebble phosphate from the Bone Hill Consolidated Phosphate Co.; 16th, British steamship Lemgo for Helsingborg via Newport News with 2860 tons of pebble phosphate from the Land Pebble Phosphate Co. The British steamship Cilurnum, from New York, arrived on the 17th for a cargo of phosphate.

TRADE NOTES.

"White-House" paint, a specialty made by J. Watts Kearny & Son, New Orleans, La., is growing in popular favor, and the manufacturers report a big demand for this product.

A sales agency for the Stilwell-Bierce & Smith-Vaile Co., of Dayton, Ohio, has been established in Baltimore. This new agency is quartered in the Equitable Building, and is in charge of John H. Buxton.

The New York office of the Campbell & Zell Co., of Baltimore, has closed a contract to furnish Gillis & Geoghegan 600 horsepower Zell Improved water-tube safety boilers, to be installed in the Woodbridge Building, New York city.

Contract for a kiln with a capacity for 30,000 feet of pine lumber per day has been closed by the Emerson Co., Baltimore, for F. Kell, Gumbery, N. C. The Emerson Co. manufactures the automatic compression driers, which are attracting considerable attention among lumbermen.

A card in our advertising columns offers for sale 3500 acres of timber and farming land, located twenty-five miles from Charleston, S. C. Phosphate rock of high grade is found on the property. A number of smaller farms are also offered for sale at a low figure. A. F. C. Cramer, Charleston, S. C., can give the particulars.

Hoyle & Abbott, Atlanta, Ga., have become the Southern representatives of the Dorner & Dutton Manufacturing Co., Cleveland, Ohio, manufacturer of electric motor and trail cars, special machinery, etc. The territory covered embraces Tennessee, Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi and Louisiana.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD
 seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

ALABAMA.

Attala — Mines. — Hammond Bros. & Co. are developing new mines.

Bessemer — Grist Mill. — R. F. Mims & Co. have equipped a grist mill.

Birmingham — Brass and Bronze Foundry. G. L. Anderson & Co. are erecting a brass and bronze foundry. They make a specialty of car brasses and rolling mill and furnace work. A new 500 horse-power dynamo has also been added.

Birmingham — Tobacco Factory. — A large factory for tobacco and snuff will be established, negotiations having been completed by Malone & Bell.

Birmingham — Cotton-picker Works. — The Commercial Club is investigating a cotton picker patented by G. N. Todd, with a view of assisting in the organization of a company to manufacture same in Birmingham.

Birmingham — Soap Factory. — Tennessee parties are said to contemplate the erection of a soap factory.

Florence — Chair Factory. — The Wilkes Chair Factory, at Pleasant Valley, will be enlarged and make chairs on a more extensive scale. Machinery will be added now and operations resumed in August.

Gadsden — Flour Mill. — Cassell Bros. will erect a flour and grist mill.

Glencoe — Lime Works. — The Rock Springs Lime Works will be enlarged.

Huntsville — Flour Mill. — J. B. & J. F. Boyd are in negotiation with the Chamber of Commerce for the erection of a 100-barrel flour mill.

Ironton — Furnace. — The Clifton Iron Co. has let contract to Crellin & Nalls, of Birmingham, for the improvements to its furnace previously noted.

Jacksonville — Iron Mine, etc. — J. W. Burke has been elected president and manager of the Tredegar Mineral, Railway & Iron Co., which owns large tracts of iron-ore deposits near Jacksonville. Extensive developments will probably be commenced in the near future.

Jefferson — Coal Mines, etc. — The Jefferson Coal & Railway Co. has been incorporated by Douglas H. Gordon and Henry Jenkins, of Baltimore, Md., placing the capital stock at \$400,000. The company has acquired and will develop the property of the Mary Lee Coal & Railway Co.

Lacon — Saw Mill. — The Schaefer-Burkard Lumber Co. has erected a saw mill and commenced operations.

Mobile — Timber Development. — McCuen & Pray, of New Orleans, La., have purchased a large tract of cypress land in Alabama and will develop same for the mill and market. The deal involved about \$50,000, and about 25,000,000 feet (board measure) of cypress and 20,000,000 feet of pine is on the property.

Mobile — Lumber Plant. — D. W. Crane, of Frankfort, Ky., will erect a saw mill, planing mill, dry-kilns, etc., at Mobile.

Montgomery — Brewery. — The Montgomery Brewing Co., now in operation, has incorporated with a capital stock of \$50,000. W. A. Gayle and Alex. Troy are interested.

Opelika — Cotton Mill. — A proposition has been made for the erection of a cotton mill of 30,000 spindles and 1000 looms at Opelika, Ala. R. B. Barnes is interested.

Piedmont — Cannery. — W. C. Bentley intends to put in an equipment for canning, capacity to be about 2000 to 3000 cans per day.

ARKANSAS.

Evening Shade — Flour Mill. — Hamilton & Pence talk of putting in the roller system.

Hardy — Flour Mill. — Baily & Burne will put in a roller system for flour.

FLORIDA.

Cantonment — Saw Mill. — Joseph McVoy is erecting a saw mill of 20,000 feet daily capacity.

Gainesville — Brick Works. — L. A. Lyons is trying to organize a company to erect brick works.

Jacksonville — Power-house. — Contract has been awarded to the Knoxville Building & Construction Co. for the erection of the new water-works power-house for the city at \$49,000; structure to be 77x59 feet, with a truss roof, covered with slate, and have aerating basin fifty feet in diameter and five feet deep.

Key West — Electric-light Plant, Telephone Exchange, etc. — The Tropical Electric Co. noted last week as incorporated, has for its present plan to install a telephone exchange and electric-light plant at once, and construct a telephone line to the Northern part of the State. Plans and specifications will be prepared at once; E. M. Martin, secretary.

Miami — Ice Plant. — It is rumored that Forest Lake and others will erect a \$20,000 ice plant.

Ocala — Pottery. — Mr. Grocott, of Anthony, is in correspondence with the Board of Trade at Ocala with reference to the erection of a pottery.

Ocala — Canaglare Plant. — R. J. Kerr, of Hockley, Texas, is reported as contemplating establishing in Florida a plant for preparing canaglare root for the market.

St. Augustine — Cannery. — G. H. Willett, of St. Louis, Mo., contemplates the erection of a cannery on the Indian river.

GEORGIA.

Atlanta — Acid-phosphate Works. — O. A. Smith is figuring on the erection of a plant for producing acid phosphate and complete fertilizers.

Atlanta — Sulphuric-acid Plant. — The Marietta Guano Co. has awarded contract for the erection of a 110,000-cubic-foot sulphuric-acid plant.

Atlanta — Tinplate and Tinware Factory. — The partnership heretofore existing between Chas. A. Conklin and John N. Goddard, doing business in Atlanta under the name of the Chas. A. Conklin Manufacturing Co., and in Savannah as Chas. A. Conklin & Co., has been dissolved. A new general partnership has been entered into by Chas. A. Conklin, Raphael T. Semmes and John N. Goddard, under the name of Chas. A. Conklin & Co. in Savannah, Ga., and Chas. A. Conklin Manufacturing Co. in Atlanta, with general offices, manufactory and warerooms in Savannah and a manufactory and warerooms in Atlanta, for the purpose of manufacturing tinplate and sheet metal goods, and jobbing hardware, tinplate, tinner's stock, stoves, etc.

Atlanta — Bicycle Works. — The Atlanta Bicycle and Machine Works has been organized, with a capital of \$100,000, and will equip at once a plant for the manufacture of high grade wheels. Messrs. A. J. West, C. T. Krane and S. W. Wilkes, of Atlanta, and Frank L. Lewis, James I. De Sette and Arthur Green, of Indiana, are interested.

Augusta — Oil Mill. — The new mill of the Interstate Cotton Oil Co., lately reported, will include seedhouse 150x50 feet, hullhouse 100x50 feet, oil mill proper 217x43 feet, and boiler-room 30x40 feet. Contract for buildings has been let at \$20,000.

Augusta — Cotton Mill. — The Enterprise Manufacturing Co. will erect, according to reports, a new mill, to be equipped with

40,000 spindles, making its plant 73,000 spindles in all.

Bremen — Cannery. — H. B. De Yoe and associates have incorporated the Bremen Cannery Co., with a capital stock of \$10,000, for canning and other purposes.

Canton — Gold-mining. — C. Morljean is erecting a stamp mill and other machinery at the Charles gold mine in Cherokee county.

Douglasville — Cotton Mill. — Arrangements are already under way for the rebuilding of the Eden Park Cotton Mill, lately destroyed by fire. It is announced that 6000 spindles will be put in the new plant, and 10,000 spindles if certain concessions in railway freights are granted; will make hosieries.

Dublin — Electric-light Plant and Water Works. — Contract has been awarded to Walton & Wagner, of Rome, Ga., for the erection of an electric-light plant and the construction of a water-works system for Dublin; awarded at \$22,748.

Jackson — Wagon Shop, etc. — J. R. Carmichael has about completed a new shop for facilitating his wagon-making.

Macon — Ice Plant. — It is reported that a large ice plant will be built.

Macon — Soap Factory. — O. L. McWaters has established a soap factory.

Marble Hill — Quarries, etc. — George F. Gober and associates have incorporated the Amicola Marble & Power Co., with a capital stock of \$600,000, for the purpose of developing quarries, water-powers, etc.

KENTUCKY.

Burnside — Oil Tanks, etc. — It is stated that the Standard Oil Co. (office, New York city,) will erect large oil tanks at Burnside and lay a pipe line in Wayne county.

Louisville — Medicine Factory. — C. M. Edmunds and others have incorporated the Interstate Pharmacal Co. for the purpose of manufacturing proprietary medicines; capital is \$4000.

LOUISIANA.

New Orleans — Paving Contracts. — The New Orleans Paving Co. has been incorporated, with a capital stock of \$30,000, by A. T. Moss and others, for the purpose of contracting for paving, etc.

Shreveport — Compress and Oil Mill. — S. B. Hicks and others are interested in a movement for the erection of a cotton compress and a cottonseed-oil mill.

MARYLAND.

Baltimore — Packing Company. — Louis L. Lord and associates have incorporated the Lord-Mott Company to deal in and pack fruits, etc.; capital stock \$6000.

Baltimore — Clothing Factory. — The Gibbon Manufacturing Co. has been incorporated by S. Percy Gibbon and others for the manufacture of wearing apparel; capital \$10,000.

Baltimore — Water Works, etc. — A company will be incorporated to construct the water-works system lately noted; incorporators to be L. B. McCabe, John L. Rosensteel, J. L. Gallagher and others; capital stock to be \$50,000.

Pocomoke City — Ice Plant. — A company will be organized, with a capital of \$10,000, to erect an ice plant.

MISSISSIPPI.

Greenville — Packing-house. — The Mittenger-Watson Co. contemplates the establishing of a packing-house, and wants to hear from an experienced man with a little capital.

Meridian — Land Company. — Horace W. Sessions and associates have incorporated the Horace W. Sessions Land Co., with a capital of \$10,000.

Morrison — Timber Mill. — Mulford Parker will rebuild at once his timber mill reported as burned.

MISSOURI.

Columbia — Sewerage. — The city may possibly construct a sewerage system in the near future. Address the mayor.

Hutton Valley — Flour Mill. — T. T. Bryan will remove a flour mill to Hutton Valley and remodel and improve same.

Kansas City — Iron Works. — Ed. H. Witte and others have incorporated the Witte Iron Works Co., with a capital stock of \$25,000.

Kansas City — Shoe Company. — S. H. Curfiss and others have incorporated the Boston Shoe Co., with a capital of \$8000.

Kansas City — Mining. — Stephen A. James and associates have incorporated the James Mining Co. with a capital stock of \$20,000.

Princeton — Electric-light Plant and Water Works. — The city will contract for the erection of an electric-light plant and the construction of water works. Address W. W. White, mayor.

Rockville — Grain Company. — A. T. Lowrey and associates have incorporated the A. T. Lowrey Grain Co., with a capital of \$2000.

St. Louis — Cycle Company. — The Tidd Cycle Manufacturing Co. has been incorporated, with a capital stock of \$5000, by R. M. Tidd and associates.

St. Louis — Cold-storage Plant. — The Louisville & Nashville Railroad Co. (office, Nashville, Tenn.) will erect a \$25,000 ice plant at St. Louis in connection with Produce Exchange. (See Building Note.)

St. Louis — Realty. — The Ironclad Realty Co. has been incorporated, with a capital of \$35,000, by Jacob M. Gruen et al.

Westport — Water Works. — The city will hold an election to decide as to an issuance of \$60,000 in bonds for extension of water mains. Address the mayor.

NORTH CAROLINA.

Greensboro — Furnace. — The Greensboro Furnace Co. has raised the working capital for its mines and furnace, and awaits action on certain railroad freight rate concessions which it is expected to obtain. When these are secured the mines will be worked and the iron furnace put in blast; J. D. Kase, general manager.

Gumberry — Dry-kiln. — The Emerson Company, of Baltimore, Md., has received contract from F. Kell, of Gumberry, for the erection of a dry-kiln of 30,000 feet daily capacity.

Mariposa — Gold Mine. — J. G. Morrison is opening a gold mine.

Monbo — Cotton Mill. — The new building for the Monbo Manufacturing Co., noted last week, is to be a modern one in every respect. The present equipment will be placed in it when completed. Later on 2080 spindles may be added. Orders for new turbine wheels have been placed.

Rutherfordton — Planing Mill. — Powers & Hewitt are adding new machinery to their planing mill.

Salisbury — Cotton Factory. — F. J. Murdoch, E. T. Garsted, W. S. Blackmer and N. B. McCanless have organized the Spencer Manufacturing Co. to erect a mill for utilizing cotton-mill waste.

Saluda — Lumber Plant, Quarries, etc. — The Saluda Construction Co. has been organized to operate a planing mill, open stone quarries, grade roadways, pump water, etc.

Windsor — Knitting Mill. — Francis D. Winston contemplates the establishment of a knitting mill.

SOUTH CAROLINA.

Aiken — Building-material Factory. — The Hankinson Lumber Co., recently incorporated, has for president J. L. Hankinson, and secretary, B. M. Youngblood. A plant is now being equipped for the manufacture of sash, doors, blinds, newel posts, brackets, etc.

Bamberg — Cotton Mill. — The Bamberg Cotton Mills, recently noted as to increase its capital and double the capacity of its mill, has completed the subscription and will arrange at once for erection of additional plant. The mill now has 6720 spindles.

Bamberg — Knitting Mill. — H. C. Folk, Thomas Black and others have incorporated the Bamberg Knitting Mills, with a capital of \$10,000, to establish a plant.

Bath — Cotton Mill. — The Aiken Manufacturing Co. has completed its mill building and placed the machinery requisite for making fine brown goods; equipment is 15,000 spindles and 412 looms; F. B. Henderson, of Aiken, S. C., president; office of company, Library Building, Augusta, Ga.

Charleston — Lumber Company. — C. W. Townsend and J. H. W. Stroman have incorporated the Southern Lumber Co., with a capital stock of \$10,000.

Charleston — Ice Company. — Lewis P. Hart and others have incorporated the City Ice Co., with a capital of \$10,000.

TENNESSEE.

Chattanooga — Baths. — S. R. Read has obtained permit for the construction of a system of baths, to cost \$5000.

Chattanooga—Glass Factory.—The secretary of the Board of Trade, Mr. Goulding, is in receipt of a letter from Pierre Mahy, of Ransart, Belgium, inquiring as to the advantages of Chattanooga as a location for a glass factory to employ 150 men.

Chattanooga—Dry-kiln.—The Loomis & Hart Manufacturing Co. has contracted for a drying plant.

Chattanooga—Machine Shops.—The Alabama Great Southern Railroad will erect a shop to cost \$4000. A. T. Hooker, master mechanic, will have charge of the matter.

Chattanooga—Medicine Factory.—Lee Gerstle & Co. will double their medicine factory in Highland Park at a cost of about \$10,000.

Knoxville—Machine Shops.—The shops of the Knoxville, Cumberland Gap & Louisville Railroad, at Middlesborough, Ky., will be removed to Knoxville. This road is controlled by the Southern Railway; C. H. Hudson, chief engineer, Washington, D. C.

Lenoir City—Cotton Mill.—A company is being organized for the purpose of erecting a cotton-yarn mill. J. W. Grizzell is to be secretary, and can be addressed for particulars.

Memphis—Railroad Shops.—The board of directors of the Memphis Freight Bureau has inaugurated a movement to secure the location in Memphis of the general shops of the Illinois Central Railroad office, Chicago, Ill.)

Memphis—Saddlery, etc.—The Woods & Woods Co. and the Chickasaw Saddlery Co. have consolidated and chartered as the Woods-Chickasaw Manufacturing Co., to deal in agricultural implements and other machinery, manufacture saddles, harness, straps, etc. Louis Wood is president; A. P. Truss, vice-president, and A. W. Torion, secretary.

Mohawk—Woodworking Factory.—G. H. Rader and William Nicholas are equipping a woodworking plant for sash, doors, blinds, etc.

TEXAS.

Alvin—Brick Works.—W. T. Laremore, of Shenandoah, Iowa, will locate the brick works at Alvin recently noted.

Dallas—Building Material, etc.—G. W. Sonnefield and associates have incorporated the Sonnefield & Emmins Construction Co., for manufacturing building material, etc., with a capital of \$10,000.

Gainesville—Mercantile.—C. N. Stevens and associates have incorporated the Stevens, Kennerly & Spraggins Co., with a capital of \$100,000, for mercantile purposes.

Houston—Ice Company.—Chas. A. Zilker and associates have incorporated the Crystal Ice Co. with a capital stock of \$15,000.

Houston.—At a stockholders' meeting of the Houston Water Works Co., held last week, it was decided definitely to erect the reservoir recently noted; same will cost about \$75,000.

Laredo—Woolen Mill.—Mr. H. L. Brook, of Philadelphia, Pa., will endeavor to complete arrangements for the erection of a woolen mill in Laredo.

Palestine—Electric-light Plant.—The Palestine Electric Light Co. is putting in a sixty horse-power boiler and other machinery for the betterment of its plant.

San Antonio—Irrigation.—N. T. Wilson and associates have incorporated the Southwest Irrigation Co., with a capital stock of \$10,000, for irrigation construction purposes.

Sour Lake—Oil Wells.—W. A. Savage and associates have formed the company to drill for oil.

Sugar Land—Sugar Refinery, etc.—Ed. H. Cunningham & Co., operating sugar refinery, etc., have incorporated, with a capital placed at \$5000, the incorporators being Ed. H. Cunningham, W. K. Morrow and associates.

Waco—Packing-house.—John Coombs has obtained permit for the erection of a packing-house, to include 40x40-foot room for killing, 30x30-foot room for cooling, boiler and engine room, sausage and tank rooms, etc.

Wolfe City—Electric-light Plant.—John Reynolds will erect an electric-light plant.

VIRGINIA.

Bedford City—Tobacco Works.—The Berry Bros. Tobacco Co. has been organized, with T. D. Berry, president, and W. W. Berry, Jr., secretary, to continue the operation of the factory of Berry Bros. This plant has recently been refitted with improved machinery.

Buena Vista—Iron Mines.—Charles P. Swengle and associates have leased and will develop largely iron-ore beds near Buena

Vista. Twenty-five to fifty men will be put to work at once.

Danville—Flour Mills.—The Donvalley Milling Co. will double the capacity of its flour mills.

Lynchburg—Dye Plant.—The Stamford Manufacturing Co., of Stamford, Conn., has purchased site at Lynchburg and will erect a large plant for the manufacture of vegetable dyes.

Martinsville—Electric-light Plant and Sewage System.—The city will vote as to whether electric lights shall be secured and a sewerage system constructed. Address the mayor.

Norfolk—Chartered: The Driving Club and Fair Association.—With capital of \$25,000; John Mariner, president.

Norfolk—Medicine Factory.—Charter has been granted to the Quratol Co., with a capital of \$25,000, for manufacturing a medicine, etc., etc.; W. H. Terry, president, and A. W. Cornick, secretary.

Radford—Brick Works, etc.—The Enterprise Contracting Co. has been organized, and will equip a plant for the manufacture of bricks, etc.; Joseph H. Phillips, president, and W. J. Kenkardine, secretary.

Roanoke—Saw Mills, etc.—It is said that Street & Keep, of Chicago, Ill., will immediately move their large saw-mill plant from Northern Michigan to a point on the line of the Big Stony Railroad near Roanoke. The plant includes saw mills, planing mills, dry-kiln, shingle mill, etc., costing about \$100,000. This move is stated to be about assured by reason of the compromise of certain suits of the Big Stony Railroad Co., Frank Woodman, president.

Roanoke—Bridge.—The Big Stony Railroad Co. will at once arrange for the rebuilding of the bridge across the New river with solid masonry and iron work. Frank Woodman is president.

WEST VIRGINIA.

Charleston—Lumber Plant.—C. H. Eaton and associates have incorporated the Sterling Lumber Co., with a capital stock of \$100,000.

Leading Creek—Corn and Feed Mill.—Lloyd Bailey and associates will erect a corn and feed mill.

West Virginia—Oil Lands.—The Southwest Oil & Gas Co., recently organized, has leased 15,000 acres of oil territory and will develop same in Calhoun and Wirt counties. Henry V. Purcell, of New York city, is president, with H. H. Blackburn, of Washington, D. C., and Ira Dewitt, of Pittsburg, Pa., interested.

Wheeling—Garbage Crematory.—The city health committee is considering the construction of another garbage crematory.

Wheeling—Garbage Crematory.—The Butchers' Association is in communication with the Consolidated Construction Co., of New York city, N. B. Powter, representative, relative to the erection of a crematory for cremating garbage into fertilizers.

BURNED.

Anderson, S. C.—The Anderson Mattress and Spring Bed Factory.

Centerville, Fla.—The cotton gin of T. J. Roberts & Sons.

Gadsden, Ala.—E. G. Eaton's saw mill.

Goldsboro, N. C.—Royall & Borden's chair factory.

Howard County, Md.—The saw mill of Ezekiel Fleming, of Farmington, Del.

Morrison, Miss.—The saw mill of Mulford Parker.

New Berne, N. C.—Broadus & Ives's shingle mill.

New Berne, N. C.—The East Carolina Barrel Factory and A. R. Denison's cotton gin.

Norfolk, Va.—The machine shops of White Bros.; loss about \$5000.

Princeton, Ky.—Powell & Hollingsworth's tobacco factory.

Reedy River Factory, S. C.—The Reedy River Manufacturing Co.'s cotton mill damaged to extent of \$6000 in picker-room.

BUILDING NOTES.

Messrs. J. H. Day & Co., of Cincinnati, Ohio. will build this summer a machine shop to cover a space of about 200x250 feet. This firm is maker of special machinery.

Atlanta, Ga.—Jail.—Competitive plans and specifications are invited for the proposed new jail recently noted; to include executive room and cells for 500. Competition will close May 12. For further information apply to Forest Adair or Grant Wilkins.

Atlanta, Ga.—Home.—M. W. Almand is interested in a movement to raise \$10,000 to build a building for a home association.

Baltimore, Md.—School.—The mayor has signed the ordinance calling for the expenditure of \$35,000 for the erection of a school building for No. 7, in the first ward. Address the inspector of buildings.

Chase City, Va.—Business Building.—Brooks, Hardy & Co. will erect a large business building.

Chattanooga, Tenn.—School.—The city council school committee has decided upon the erection of a \$5000 school building.

Chattanooga, Tenn.—Dwelling.—D. Y. Greib will erect a \$5000 residence; plans now being prepared.

Columbus, Ga.—Church.—Contract has been let to Dudley & Sons for extensive improvements to First Baptist Church, to cost about \$10,000.

Goldsboro, N. C.—Bank Building.—The National Bank of Goldsboro will erect a building for office, etc. Address care of Wm. R. Allen.

Greenville, Miss.—Mercantile Building.—The Goyer Co. has awarded contract to J. J. Harty for the erection of a mercantile building 80x286, thirty feet high, of brick, with graved roof; to cost \$13,465.

Knoxville, Tenn.—Wright & Hodges. will erect a brick building to cost about \$5000.

Lampasas, Texas—Opera-house.—John N. Manuel and others have incorporated the Hanna Springs Opera House Co., with a capital of \$2000.

Latta, S. C.—Warehouse.—The Latta Tobacco Warehouse Co. has been organized, with L. B. Rogers, president, to erect a warehouse.

Louisville, Ky.—Depts., etc.—The Louisville, New Albany & Chicago Railroad will make extensive improvements at Louisville and New Albany, including the erection of freight depot, new trackage, etc.; F. Hall, civil engineer for company; office in Chicago, Ill.

Macon, Ga.—Association Building.—The Y. M. C. A. will erect a three-story pressed-brick and stone building; E. J. Willingham, president.

Manchester, Va.—Courthouse.—Contract has been awarded to Trexler & Elmore for the erection of a new courthouse at \$14,990.

Manchester, Va.—Warehouses.—The Richmond & Petersburg Railroad, Fred. R. Scott, president, will erect warehouses.

Maysville, Ky.—Hall.—The I. O. O. F. will erect a hall building.

New Orleans, La.—Dwellings.—Building permits have been issued to J. Mercadel for a cottage to cost \$1250; to J. Manger for three single cottages to cost \$8500; to Dodd & St. John for a double and single cottage to cost \$3000; to Mrs. E. Casson for two double cottages to cost \$2500; to John Gressing for a two-story dwelling and store to cost \$2200, and to E. J. Demarest for additions to cost \$2175.

Norfolk, Va.—Hall.—Contract has been awarded to R. E. Baylor for the erection of the Kirk Hall, 50x100 feet, to cost \$16,000.

Rockdale, Texas—Store.—Louis Henne has let contract for the erection of a brick store 60x100 feet.

St. Augustine, Fla.—Warehouse.—J. A. McGuire is preparing plans for a two-story warehouse, to be used in storing supplies for the East Coast system of hotels; to be of wood, 32x35 feet, with freight elevator, electric lighting, gas heating, etc.

St. Louis, Mo.—Business Block.—The Louisville & Nashville Railroad Co. (office, Nashville, Tenn.) has purchased a block of ground at St. Louis and will erect thereon a fruit and produce exchange to represent an outlay of \$700,000. The building is to be a three-story one, containing twenty-five storerooms, equipped with electric elevators, cold storage, electric lights, etc.; cost of building to be \$175,000, after plans by Alfred Baker. A cold-storage plant in connection will cost \$25,000; W. S. McChesney, superintendent of terminals at St. Louis.

Temple, Texas—Business House.—A company has purchased site for \$5100 and will erect three-story business block 150x90 feet.

Washington, D. C.—Dwellings.—The Cleveland Park Co., 3322 Newark street, has secured permit for the erection of a \$3500 dwelling.

The Buss Machine Works. located at Benton Harbor, Mich., will be offered at a trustee's sale on May 14 at the courthouse in Grand Rapids, Mich. The plant embraces completed equipment for manufacturing woodworking machinery and a number of specially constructed buildings. F. Letellier, trustee, Grand Rapids, Mich., can give detailed information.

RAILROAD CONSTRUCTION.

Steam Railways.

Antoine, Ark.—Receiver J. A. Woodson. of the Southwestern Arkansas & Indian Territory road, has been authorized to make the proposed extension of the line from Antoine to Pike City, twelve miles. Mr. Woodson's address is Little Rock.

Bentonville, Ark.—The Arkansas Northwestern Company has determined to build its proposed line from Bentonville to Miami, I. T. The capital is \$1,125,000.

Blacksburg, Va.—Alexander Black, a director in the company promoting the line from Blacksburg to Christiansburg, eight miles, advises the Manufacturers' Record that surveys are now being made of the route.

Bowling Green, Ky.—It is stated that Louisville, Cincinnati, Bowling Green and Philadelphia parties have become interested in the Bowling Green Northern Railroad project.

Bowling Green, Ky.—The company which is back of the Bowling Green Northern project comprises James D. Hines, president, and M. H. Crump, secretary. The road is intended to be built from Bowling Green to a point on the Chesapeake, Ohio & Southwestern, making a shorter line between Louisville and Cincinnati. W. R. Vaughan & Co., at Bowling Green, may be addressed.

Bristol, Tenn.—The Cairo & Tennessee River Railroad Co. has been chartered to construct a railroad beginning at a point near Bristol, in Sullivan county, and running westwardly through the counties of Hawkins, Hancock, Claiborne, Union, Campbell and Scott, and entering the State of Kentucky near the State line between Campbell and Scott counties, and then passing through the counties of Whitley, Pulaski, Wayne, Clinton, Cumberland, Monroe, Barren, Todd, Christian, Trigg, Marshall, Grover, Calloway and Ballard, in Kentucky, to Fort Jefferson and the Mississippi river. Among the incorporators are R. F. Breckinridge, J. F. Coulter and A. J. Harpole, of Union City, Tenn.

Cooper, Texas—Business men of Cooper are forming a company to build a road from Cooper to Ben Franklin, a distance of ten miles.

Dallas, Texas.—It is stated that the Dallas & Southeastern Company, recently chartered, will extend the Texas Trunk Railroad, now completed from Dallas to a point in Kaufman county, to Palestine, Texas. E. R. Pardue, of New York (address at present unknown), is the principal stockholder.

Elba, Ala.—Surveys have been completed by the South Alabama & Gulf Railroad Co. for the proposed line from Newton, on the Alabama Midland, to Elba, the county site of Coffee county. It is rumored that the Plant system is interested in this enterprise. The proposed railroad will penetrate a fertile agricultural section and extensive tracts of yellow-pine timber. B. B. Dunham, at Savannah, Ga., may be addressed.

Greenville, S. C.—It is stated that the Southern Railway Co. has determined to build about seven miles of siding at Greenville and two miles of double track at Salisbury. C. H. Hudson, 1300 Pennsylvania avenue, Washington, is chief engineer.

Heartpine, Ga.—It is stated that Harden & Campbell have secured the contract to construct the South Georgia Railroad. It is to be completed by September 1.

Jacksonville, Fla.—The Manufacturers' Record is advised that Gen. J. W. Burke has been elected president of the Tredegar Mineral Railway & Iron Co., which is constructing a road about nine miles long from Jacksonville to its ore beds.

Little Rock, Ark.—Edwin Hood is promoting a line from Oklahoma east to Memphis, Tenn., by way of Clinton and Harrison, Ark. A branch is projected to Little Rock.

Louisville, Ky.—The Louisville, New Albany & Chicago Company has decided to build additional yard tracks at Louisville and to make other improvements. F. Hall, at Chicago, is chief engineer.

Morehead, Ky.—It is reported that James Reynolds and others, of Louisville, will combine with the Hixson-Rodburn Lumber Co. in the plan to build a 10-mile extension of its lumber road to a connection with the Chesapeake & Ohio. The Lumber Company's address is Rodburn, Ky.

Palm Beach, Fla.—The Florida East Coast Line has completed its extension from Palm Beach to Miami, on Biscayne bay, and trains are now running over the line. The extension is sixty-five miles long.

Pinebloom, Ga.—Prest. B. B. Gray advises the Manufacturers' Record that work has begun on the Fitzgerald, Pinebloom & Valdosta road.*

Queenstown, Md.—The Queen Anne & Kent Railway is now under construction at a point near Greenwood, Del. J. W. Troxel, at Queenstown, is chief engineer.

Sebastian, Fla.—It is stated that the rails have been purchased for the road from the Florida East Coast Line to the property of A. O. Russell, which is called Cincinnati. It will be ten miles long. J. O. Fries, of Orlando, is engineer.

Texarkana, Texas.—The section of the Kansas City, Pittsburg & Gulf between Texarkana and Shreveport, La., has been completed and is in operation.

Electric Railways.

Federal Point, Fla.—William L. Door, of Federal Point, and William A. Evans, a contractor at Jacksonville, Fla., are promoting a scheme to build an electric road from Federal Point to Hastings, eight miles.

Houston, Texas.—The Houston City Railway Co. is relaying its tracks with 65-pound steel rails. It has forty miles of line. John H. Kirby is receiver.

Jackson, Miss.—P. W. Peeples, the owner of the Jackson street railway, is endeavoring to arrange to change it to a trolley line. It is seven miles long.

Meridian, Miss.—The Meridian Street Railway Co., which has recently completed two miles of trolley line, is considering further extensions of about four miles.

Richmond, Va.—The Richmond Traction Co. has decided to build several extensions to its line. The extensions will comprise about six miles of track. W. M. Hablinton is general manager.

Richmond, Va.—The Richmond Railway & Electric Co., it is stated, has secured control of the Virginia Electric Railway Co., and contemplates building a belt line in the suburbs. Andrew Pizzini may be addressed.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Barrel Machinery.—See "Woodworking Machinery."

Boiler and Engine.—See "Saw Mill."

Boiler and Engine.—The Saluda Construction Co., Saluda, N. C., will want boiler and engine.

Bridge.—The Brazos River Bridge Co. wants proposals until May 15 for the construction of a highway bridge of iron. Plans and specifications are now ready, and can be seen at office of J. L. Boggs, engineer, Houston, Texas, or G. S. Parker, secretary of the Brazos River Bridge Co., Bryan, Texas. Total length of superstructure, 480 feet. Address the last named for further particulars.

Broom Machinery.—R. W. Norris, Laurel, Md., wants to correspond with makers of broom machinery.

Building Material.—Sealed proposals will be received until May 20 for delivering cement, broken and division stone and yellow-pine lumber. For further information address Capt. Thomas L. Casey, 106 Granby street, Norfolk, Va.

Canning Machinery.—The R. D. Cole Manufacturing Co., Newnan, Ga., wants catalogues and prices on canning machinery.

Canning Machinery.—Wm. L. Gignilliat, Savannah, Ga., wants to receive estimates on cost of small plant for canning tomatoes and other vegetables.

Canning Plant.—L. C. Gunter, Batesburg, S. C., wants estimates on cost of small canning plant and information concerning the business.

Corn-cob pipe Machinery.—Gilbert Bros., Owensboro, Ky., want to correspond with makers of machinery for the manufacture of corn-cob pipes.

Corn Mill.—See "Saw Mill."

Cotton Gin.—See "Saw Mill."

Crematories.—Sealed bids will be received until April 29 for the erection of two garbage crematories with sufficient capacity to

consume the daily garbage of Galveston, Texas (50,000 inhabitants), or for the erection of one furnace with capacity equal to two, as above; \$1000 certified check must accompany each bid; bond of \$5000 to be required; G. Bowden Settle, secretary board of public works.

Electric-light Plant.—The city of Princeton, Mo., will purchase entire outfit for the erection of an electric-light plant; W. W. White, mayor.

Electric-light Plant.—The Tropical Electric Co. will be ready next month to let contracts for the erection of its electric-light plant; capacity to be probably forty arc lights and 1500 to 2000 incandescent lights. Address E. M. Martin, secretary, Key West, Fla.

Electric Motors and Fans.—E. I. Sun Office, Baltimore, Md., wants to buy a second-hand electric motors and fans for public hall. Give lowest cash price and where can be seen.

Foundry Supplies.—See "Hardening Mixture."

Hardening Mixture.—J. C. Steele, Statesville, N. C., wants to buy some chemical which will slightly harden the corners of a piece of casting (light).

Knitting Machinery.—Francis D. Winston, Windsor, N. C., wants to correspond with manufacturers of knitting machinery.

Levee Work.—Sealed proposals will be received until May 11 for the construction and enlargement of Charleston levee, Ouachita parish, La. Write to C. P. Balfour, president board of levee commissioners, New Orleans, La., for further particulars.

Lumber-mill Machinery.—The Saluda Construction Co., Saluda, N. C., will want machinery for planing and turning mill.

Machine Tools.—See "Vehicle Plant."

Paper Mill.—Wm. Marshall, 246 West Broad street, Savannah, Ga., wants to buy equipment for a paper mill.

Pump.—The Saluda Construction Co., Saluda, N. C., will want pump.

Pumps.—See Construction Department under Jacksonville, Fla.

Pumps.—Superintendent Ellis, of the board of bond trustees, Jacksonville, Fla., has recommended the purchase of two centrifugal pumps, to be run by electricity from the city's plant, for lifting sewage, etc.; the pumps to cost about \$800.

Pumps.—W. R. Molinaro, care of the General Electric Co., 227 East German street, Baltimore, Md., wants two second-hand steam pumps suitable for mining work, capable of delivering 300 gallons per minute, 125 feet head.

Rails.—Wanted, three to five miles of good steel relaying rails, with angle bars, thirty-five to fifty pounds, for Southwestern delivery. Address P. O. Box 456, Little Rock, Ark.

Railway Equipment.—Wanted, two 36-inch-gage locomotives and 300 tons of 30 or 35-pound relaying rails. Address Logging Road, 1023 Jackson street, Lynchburg, Va.

Railway Equipment.—The Baltimore & Ohio Railroad, Baltimore, Md., (John K. Cowen and Oscar G. Murray, receivers), have forwarded to builders throughout the country specifications for the additional equipment which is to be added, as recently stated. The equipment will include ten passenger locomotives for speed and sixty-five for freight hauling; also 5000 freight cars, etc. The new equipment is estimated to cost about \$3,000,000.

Railway Equipment.—The Gray Lumber Co., Pineblow, Ga., wants to buy twenty-one miles of 40-pound steel relaying rails.

Railway Supplies.—J. T. Hammond, Joselyn, Ga., wants addresses of manufacturers of railroad supplies, such as nut locks, bolts, etc.

Saw Mill.—Robert N. Bell, Guntersville, Ala., wants to buy a second-hand saw mill, corn mill and cotton gin complete, with twenty horse-power engine, twenty-five horse-power boiler, belts, shafting, etc.; wants to saw hardwood three to four feet thick; must be a bargain; will not buy except on order with guarantee; no agent need call.

Saw Mill.—George B. Bowling, Memphis, Tenn., is in the market for second-hand saw-mill machinery, complete plant; also 72-inch circular saw.

Street Sprinkler.—The Builders' Supply Co., St. Augustine, Fla., wants a two-horse street sprinkler.

Telephone Exchange and Lines.—The Tropical Electric Co. will be ready next month to let contracts for the establishment of a telephone exchange and the construction of a telephone line, etc. Address E. M. Martin, secretary, Key West, Fla.

Vehicle Machinery.—J. B. Bishop, Riceville, Tenn., wants estimates on power machinery for making carriages and wagons; new or second-hand.

Vehicle Plant.—The Wood-Dennison Machinery Co., Kansas City, Mo., will shortly be in the market for a complete line of woodworking machinery and machine tools for working material in the rough, both iron and wood, for use in making wagons, carts and carriages. The plant is to be located in Mexico. Address W. H. Wood, of the above company.

Water Works.—The city of Princeton, Mo., will purchase entire outfit for the construction of a water-works system; W. W. White, mayor.

Woodworking Machinery.—See "Vehicle Plant."

Woodworking Machinery.—E. Powers, Bennettsville, S. C., wants second-hand machinery for manufacturing spokes, handles, staves and oil barrels.

Woodworking Machinery.—H. C. Dobbs, Marietta, Ga., wants to buy machinery for making wooden screws.

TRADE NOTES.

A machine shop covering a space about 200 by 250 feet will be built this summer by J. H. Day & Co., Cincinnati, Ohio, manufacturers of special machinery.

The well-known scientific instrument establishment of Queen & Co., Philadelphia, has had its affairs reorganized and officers have been elected as follows: John Gordon Gray, president; S. L. Fox, vice-president, and J. M. Hazel, secretary and treasurer. This house went into the hands of an assignee in August, 1894. Since then the creditors have been paid in full. Mr. Gray, who was the assignee, was lately presented with a handsome testimonial by the creditors in recognition of his services in rehabilitating the house.

The annual meeting of the stockholders of the Joseph Dixon Crucible Co. was held at the company's main office, Jersey City, N. J., Monday, April 20, and out of a possible vote of 7345 shares, there were 7320 shares voted for the re-election of the old board, consisting of Edward F. C. Young, John A. Walker, Daniel T. Hoag, Richard Butler, William Murray, Alexander T. McGill and Jerome D. Gillett. President E. F. C. Young, Vice-President and Treasurer John A. Walker and Secretary George E. Long were re-elected by the directors. Judge Jos. D. Bedell was also re-elected as counsel.

The Providence Steam Engine Co., of Providence, R. I., builder of the improved Greene engine, is still rushed with new work. Recent sales are reported as follows: Goodyear Rubber Co., Middletown, Conn., 375 horse-power engine; Nonotuck Paper Co., Holyoke, Mass., two seventy-five horse-power engines; Suburban Railroad Co., Chicago, a 350 and one 500 horse-power tandem compound engines; Atlanta Cotton Mills, Atlanta, Ga., two 700 horse-power; North American Rubber Co., Settucket, N. Y., 150 horse-power; New London Street Railway Co., New London, Conn., two 400 horse-power; Hampton & Old Point Railway Co., Hampton, Va., 300 horse-power; Glenark Knitting Co., Woonsocket, R. I., 150 horse-power; Union Cotton Mills, Union, S. C., 1500 horse-power cross compound; Pilling Manufacturing Co., Philadelphia, seventy-five horse-power; American Baptist Pub. Co., Philadelphia, 130 horse-power; Second Avenue Traction Co., Pittsburgh, two 750 horse-power tandem compounds; Ponomay Mills, Taftville, Conn., two 400 horse-power; W. C. Baker, Providence, R. I., two 100 horse-power; Merrimack Paper Co., Lawrence, Mass., 300 horse-power.

New Route to Atlantic City Without Transfer Through Philadelphia via Pennsylvania Railroad.

Commencing Sunday, April 19, express trains will be run through from Broad Street Station, Philadelphia, to Atlantic City via the New Delaware Bridge route, and train leaving Baltimore 4.20 P. M. connects at Broad Street Station, Philadelphia, with train leaving at 7 P. M., arriving at Atlantic City 8.50 P. M., thus avoiding the annoyance of transfer through Philadelphia.

Returning, trains leave Atlantic City 10.10 A. M. and 4.45 P. M., making through connection at Broad Street Station for Baltimore, arriving at Union Station 2.22 P. M. and 9.15 P. M., however passengers have the choice of routes. By using new route an extra charge of twenty-five cents will be made in each direction on tickets good via Market Street wharf, Philadelphia.

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The McGahey engine is described and illustrated in a pamphlet issued by McGahey Bros., Elkton, Va. New patterns are followed in the construction of this engine, and the aim is to secure maximum economy in fuel and perfect regulation. This engine has especial advantages for electrical requirements.	
Steam Yachts and Marine Machinery	
Built by Marine Iron Works, Clybourn and Southport avenues, Chicago. Free illustrated catalogue. Write them for it. †	
INTERSTATE COMMERCE COMMISSION,	
Washington, D. C., April 11, 1896. Sealed proposals will be received at this office until 2 o'clock, P. M., Thursday, May 7, 1896, at which time and place they will be opened in the presence of attending bidders, for furnishing the following classes of supplies during the fiscal year ending June 30, 1897: Stationery, ice, and such miscellaneous articles as may be ordered. Bids are also invited for the purchase of waste paper from the Commission and for washing towels. Bids will be considered on each item separately. The right is reserved to reserve any and all bids, to waive technical defects, and to accept any part of any bid and to reject the other part. Bids for proposals, with specifications of the requirements to be met in respect to each article, and also the estimated quantities probably to be required of each, will be furnished on application to the Secretary. Responsible security will be required for the faithful performance of the contracts. By the Commission, EDWARD A. MOSELEY, Secretary.	